

DOCUMENT RESUME

ED 288 778

SO 018 487

TITLE Information Networking in Population Education.
INSTITUTION United Nations Educational, Scientific, and Cultural Organization, Bangkok (Thailand). Regional Office for Education in Asia and the Pacific.

PUB DATE 85
NOTE 94p.
PUB TYPE Reports - Descriptive (141)

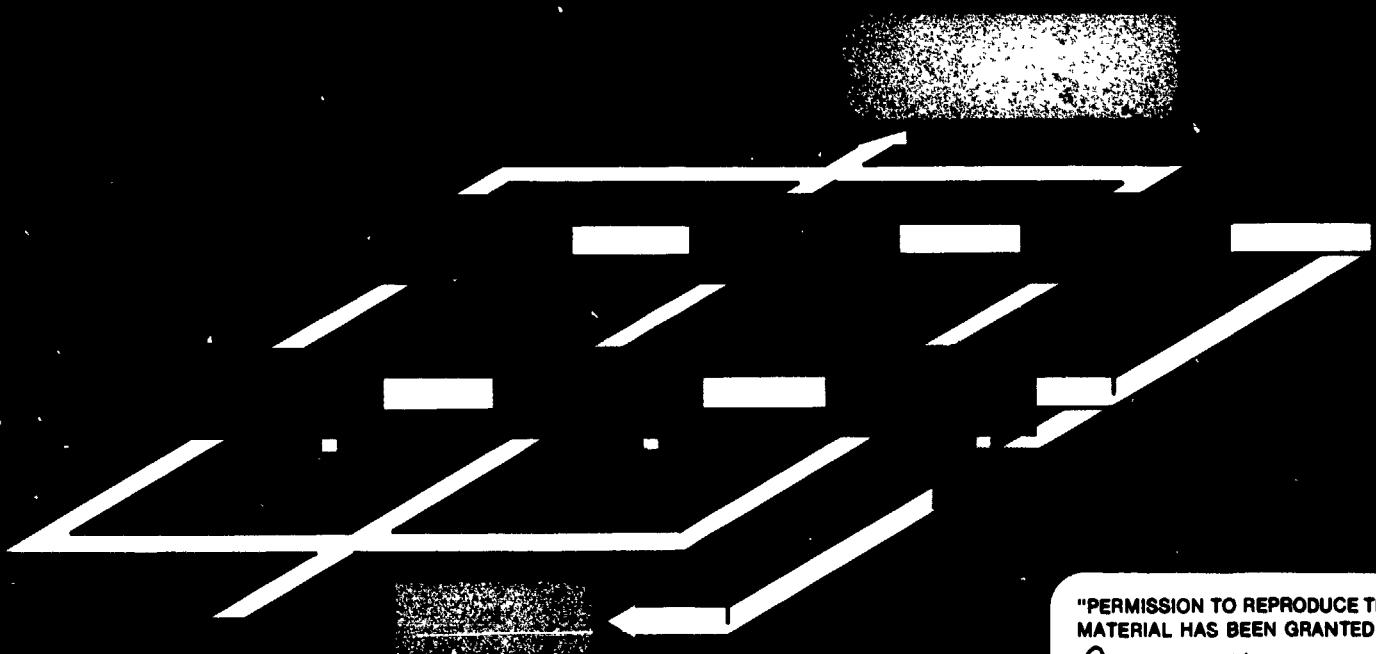
EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Developing Nations; Information Dissemination; *Information Networks; Organizational Development; *Population Education

ABSTRACT

The rapidly increasing body of knowledge in population education has created the need for systematic and effective information services. Information networking entails sharing resources so that the information needs of all network participants are met. The goals of this manual are to: (1) instill in population education specialists a more favorable attitude toward the use of information; (2) illustrate how information networking facilitates the flow and use of information; and (3) provide guidelines and procedures for establishing an information network in population education. Chapter 1 describes the purposes and the important elements that a network must possess to function effectively. Chapter 2 examines various types of information networks and presents sample models. Reasons for establishing networks are given in chapter 3. Chapter 4 describes criteria for selecting organizations to become members of networks. Steps for establishing an information network are detailed in chapter 5. Chapter 6 outlines the functions, technical services, publication program, information packaging, and other aspects of networks. Chapter 7 describes existing population information networks and provides models to illustrate their structure. (SM)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED288778



"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Carmelita

Villanueva

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

Asia and the Pacific

UNESCO Principal Regional Office for Asia and the Pacific
Manual on information networking in population education.
Bangkok, 1987.
98 p. (Population Education Programme Service)

1. POPULATION EDUCATION – INFORMATION/
LIBRARY NETWORKS. 2. POPULATION EDUCATION –
INFORMATION EXCHANGE. 3. POPULATION EDUCA-
TION – DISSEMINATION OF INFORMATION. I. TITLE.
II. SERIES.

P029.9



INFORMATION

NETWORKING IN

POPULATION

EDUCATION



Population Education Programme Service
UNESCO Principal Regional Office for Asia and the Pacific
Bangkok, 1985

© UNESCO 1987

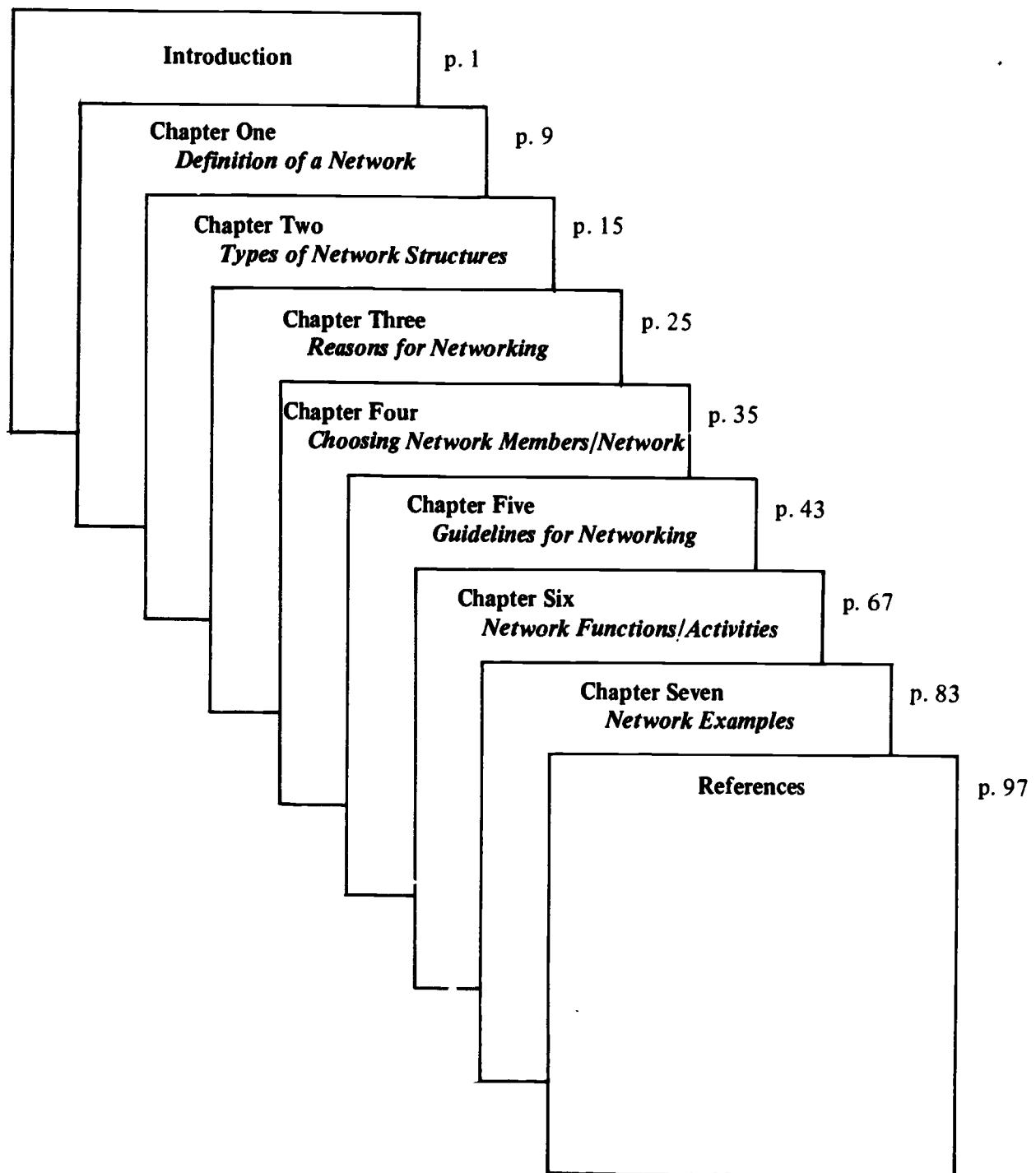
Published by the
UNESCO Principal Regional Office for Asia and the Pacific
P.O. Box 1425, General Post Office
Bangkok 10500, Thailand

Printed in Thailand
under UNFPA Project RAS/86/P13

For wider use and dissemination, sample lessons developed by the UNESCO Regional Office for Education in Asia and the Pacific and the National Population Education Programmes of the Member States may be freely reproduced. For lessons which were produced by private agencies in the region as well as other international agencies, permission to reproduce should be requested from the original publishers.

The designations employed and the presentation of material throughout the publication do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities, or concerning its frontiers or boundaries.

CONTENTS



INTRODUCTION

The recent decade has witnessed, in Asia and the Pacific, a vast expansion of the population education programme. This rapid expansion can be attributed to the population pressure which is blocking the development in the region. About 2.900 million out of the world's total population of 4.900 million people, or 58 per cent, lived in Asia in mid-1986. Six of the ten most populous countries are in Asia. They are China, India, Indonesia, Japan, Bangladesh and Pakistan, with a combined population of about 2.3 billion. The rate of population growth in the region was 1.8 per annum, which means an addition of at least 50 million people per year.

It is estimated that by the year 1990, 58.8 per cent of the world's population will live in Asia and the Pacific — a vast number of people who will have to face the harsh reality of shrinking arable land and forest areas, dwindling mining and other non-renewable mineral resources, deteriorating grazing lands, and declining energy sources. Employment, housing, education and health services may be even more scarce by then. All of these will have adverse effects on the quality of life and development efforts in the region.

WHAT IS UNESCO'S POPULATION EDUCATION PROGRAMME SERVICE FOR ASIA AND THE PACIFIC?

Recognizing the need for educational action to alleviate the population problem, UNESCO has developed population education programmes at the global, regional and national levels. The General Conference of UNESCO at its seventeenth session adopted resolution 1.221 authorizing the Director-General to pursue and undertake activities designed, *inter alia*, for the promotion of population education.

To carry out this mandate in the region, a Population Education Programme was established in the (then) UNESCO Regional Office for Education in Asia and Oceania, in Bangkok (now the Principal Regional Office of UNESCO for Asia and the Pacific) in 1972 and financed by the United Nations Funds for Population Activities (UNFPA). The programme is manned by three Regional Advisers and a Documentation Specialist in Population Education in Bangkok, and a Regional Adviser for the Pacific posted in Suva, Fiji.

OBJECTIVES OF THIS MANUAL

This manual is aimed at:

- Creating among the national population education authorities a favourable attitude towards the use of information and an understanding of how a system for information networking and resource sharing can facilitate the flow and use of information for the improvement of the population education programme.
- Providing guidelines and procedures for establishing an information network on population education;
- Describing various networking activities which can be implemented to promote the use of information at a national and regional level.

CONTENTS

CHAPTER ONE

This manual comprises seven chapters.

- Describes, what an information network is, the objectives and characteristics of a network and the important elements which a network must possess to function effectively.

CHAPTER TWO

- Examines various types of information network, each type with sample models that can be adopted by national population education programmes.

CHAPTER THREE

- Provides the reasons why countries with population education programmes should establish an information network and how librarians and information personnel can be motivated to either join or establish an information network in population education.

CHAPTER FOUR

- Provides criteria for network organizers in selecting the kind of organizations which should become members of an information network, and inversely provides criteria for potential members in selecting which information network to join.

CHAPTER FIVE

- Describes in detail the different steps for establishing an information network and gives concrete examples for each step to show how countries can apply them in their own set-up.

CHAPTER SIX

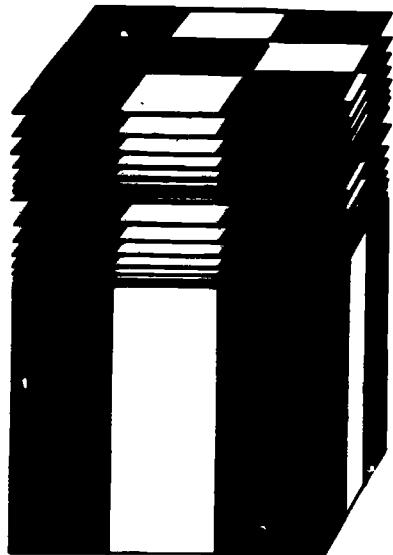
- Discusses the different functions and activities that can be implemented by the network members showing at one point how each of these activities can be assigned to network members according to functions, locations and types of organizations.

CHAPTER SEVEN

- Describes various existing information networks in population, science and education for adaptation in the population education field.

POPULATION EDUCATION INFORMATION : AN OVERVIEW

GROWTH OF INFORMATION



There has been a rapid increase in population information as a result of rapid expansion in population education programmes. For example, in the 1970s, only six countries implemented population education programmes on a national scale. Today, 15 countries in Asia and ten in the Pacific are implementing national population education programmes, with funding support from the United Nations Fund for Population Activities (UNFPA) and technical assistance from UNESCO. The expansion has generated new insights and knowledge about innovative approaches and methodologies of promoting a rational understanding about the effects of population growth and dynamics to the quality of life. It has also affected very large segments of the population, thousands of institutions and millions of teachers and learners both in-school and out-of-school.

Because of this fast developing body of knowledge and experiences in population education and the increasing number of personnel and target audiences that are involved in the programme, the need for systematic and effective documentation and information services has been recognized in the region. Planners, and policy-makers who design and initiate population education programmes should have access to information on the experiences and lessons learned by others who carried out similar programmes; the practitioners, e.g., trainers, curriculum developers and teachers, should have access to innovative methods, approaches and materials which they can use to more effectively carry out their tasks. These require, from the point of view of documentation and information, well-developed systems and tools for the collection of information, and its processing and repackaging into the right forms for dissemination to the right users at the right time.

Previously, other matters, such as the preparation of training materials and the training of teachers and trainers, have glossed over the need for the development of effective information and documentation services. Countries with population education programmes now realize that documentation and information are important basic services which underpin all educational activities and are essential for their success. Consequently, many of the Member States provide some budget allocations for the purchase of books and audio-visual materials to build and systematize their population education collection or resource base.

DEVELOPMENT OF INFORMATION/ DOCUMENTATION SERVICES : AN OVERVIEW



For the region as a whole, the development of information and documentation services in the field of population education, has been gradual. A number of countries are still in the initial phase of setting up information collection/resource bases, prior to establishing proper information/documentation centres.

The stage of development of information/documentation centres varies from country to country, with differences noted in their organization patterns, location, mandate and size. Their location and organizational set-up is better understood if viewed in the proper context with regard to the placement of the population education programme in the Ministry of Education. All national population education programmes are executed by the Ministry of Education. Within the Ministry, some countries have established a separate and independent unit while some are a part of the curriculum development centre, non-formal unit, secondary schools or the research unit of the Ministry.

While some of these national population education programmes are well equipped and well-manned, some are only manned by part-time personnel and others are run by one person on a full-time basis. Consequently, the manpower status of the population education programme has also given rise to the type of population education information infrastructure existing at present in the countries.

1. The first of this type is where the collection has been organized within the office of the national population education itself, such as in Bangladesh, Indonesia, Malaysia, Thailand, Pakistan, Sri Lanka and Nepal. In most countries, population education collections are maintained on a part-time basis by one of the programme officers.

2. In China, India, Philippines, Maldives and Viet Nam their collections are included in the main library of the Ministry of Education or in the library of one of the departments wherein population education is being implemented, such as the Department of Non-Formal Education and the National Council of Education Research and Training (NCERT).

The countries which have established a separate population education collection within the library to facilitate easier retrieval of information by the users include China, Philippines, Viet Nam and Maldives. On the other hand, India has incorporated the population education materials into the stream of the main collection of the NCERT Library.

At the local level, the following parallel developments have also emerged:

a) In India, the establishment of population education cells in the State Council of Education and Research and the State Institute of Education in 28 states and union territories.

b) In the Philippines, the establishment of population education programmes in the 13 regional offices of the Ministry of Education.

c) In China, the establishment of population education courses in 26 pedagogical institutes and middle schools.

In all cases, population education collections have also been established at the local level as an integral part of the national population education programme or as part of the main library of the parent organization concerned.

STRENGTHS AND WEAKNESSES

Either way of establishing an information and documentation service — that is, within the office of the national population education programme or incorporated in the main library of the parent organization implementing the national population programme — has its strengths and weaknesses. These are shown in the following table.

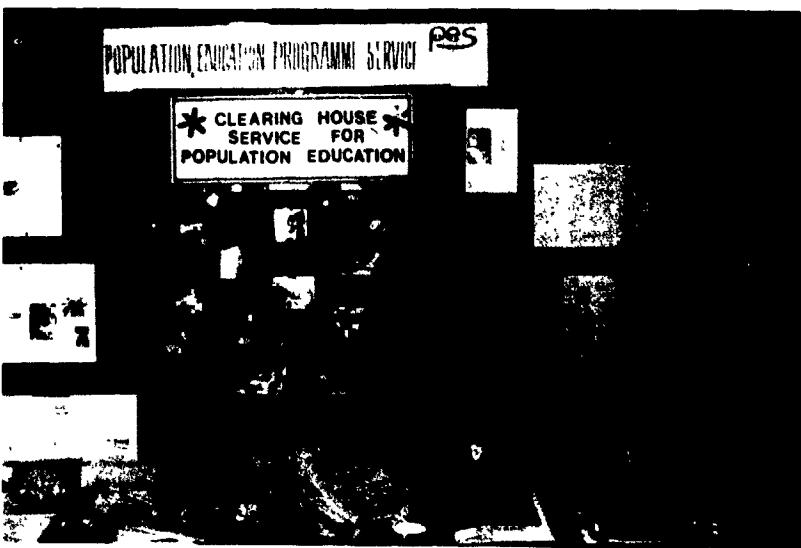
Structure	Strengths	Weakness
1. As part of the office of the national population education programme.	<ul style="list-style-type: none"> a) Immediate access to and use of materials by population education personnel. b) Functional organization of materials especially if organized by a subject specialist. c) Ability to process, analyse, consolidate and repackage information for use by professionals because of subject specialization. 	<ul style="list-style-type: none"> a) Inefficient cataloguing and maintenance of the collection as well as absence of some documentation activities, if the programme is supervised by a subject specialist. b) No budget for information services. c) Absence of library facilities and inability to provide library services. d) No systematic programme of disseminating collected, repackaged or analysed information to users outside of the professional staff of the organisation.
2. As part of the main library.	<ul style="list-style-type: none"> a) Thorough processing and proper cataloguing of materials. b) Availability of facilities and a range of services including documentation materials wherein population education can be included. c) Existence of a library budget which can also partly benefit population education. 	<ul style="list-style-type: none"> a) Users in the population education field are not given priority attention. b) Population education materials are not highlighted. c) Since librarians are not subject specialists, information provided may not be as useful and appropriate as required.

For example, in the case of second condition, in India, population education titles are included in the NCERT library's accessions list. In Viet Nam and China, the translation and publication of population education materials are undertaken as part of the general translation and publication programmes of the respective countries.

For the region as a whole, the groundwork has been laid for the establishment of information exchange and resource sharing in population education. In some countries, population education collection/information resource bases have been established in the central offices or at the state/regional district/provincial branch of the population education programme. (A complete list of these bases and their addresses are in the Annex).

The rapid production of reports, research studies, curriculum and instructional materials, training syllabuses and manuals, audio visuals and video tape materials on various aspects of population, by the parent organizations of these resource bases, has placed considerable demands on the ability of information personnel and on the ability of users to maximize use of the materials, now totalling up to 5,000 titles. A challenge is how to systematically tap such wealth of available materials so that they can be properly used for population education purposes. These population education collections and libraries have attempted to gather all the resources necessary to meet the needs of their clientele and users. If they are to continue to meet the needs of the users in an effective way, increased co-operation and resource-sharing are vital. As it is, on the national level, very limited resource-sharing is going on. To persist in a parochialistic approach will inhibit attempts to make the maximum use of population education information. Furthermore, since most of the UNFPA-funded population education programmes give very low funding support for acquisition and information services, it is more functional and efficient to pool resources together to avoid duplication and to maximize existing information services.

**UNESCO
POPULATION
EDUCATION
CLEARING HOUSE**



At the regional level, however informally, there exists in Asia and the Pacific some networking or information sharing in population education. Orchestrated and co-ordinated by the UNESCO Population Education Clearing House, information on the experiences and innovations in population education generated by Member States are gathered, consolidated and disseminated through the Clearing House publications and enquiry services. Its redistribution programme, whereby multiple copies of outstanding



population education publications produced by national population education programmes are collected and distributed to Member States, further facilitates information flow and exchange.

These information and materials are further announced and publicized in the region through various information/documentation tools – such as accessions lists, abstract-bibliography series and newsletters, booklets and packages. These are briefly described below.

- Consolidation, repackaging and dissemination of national bibliographies on population education, to alert users to the availability of documents/publications produced by national population education programmes.
- Publication of the UNESCO Population Education in Asia and the Pacific Newsletter to provide a systematic exchange of information through its network of correspondents.
- Transformation and repackaging of curriculum and training materials, research studies, lessons and syllabuses into booklets, manuals and packages.
- Mobilization of other sources of information from Member States and other UN agencies and international information centres engaged in population education, as may be required when replying to users' queries.
- Publication of a directory of UNFPA-funded and Unesco-assisted national population education programmes in Asia and the Pacific to provide direct communication link between population education programmes and the sources/producers of population education information.
- Assistance to national population education programmes in building their information services infrastructures by helping countries identify useful materials to comprise their collection and in the actual procurement of these materials as well as through donation.

Another form of UNESCO assistance is the provision of training to develop the skills of information/documentation personnel in organizing and maintaining population education information resource bases.

The UNESCO Clearing House performs its co-ordinating role within the directed type of network that exists in the region. Bilateral or multi-lateral information exchange, undertaken directly among countries, has yet to be developed.

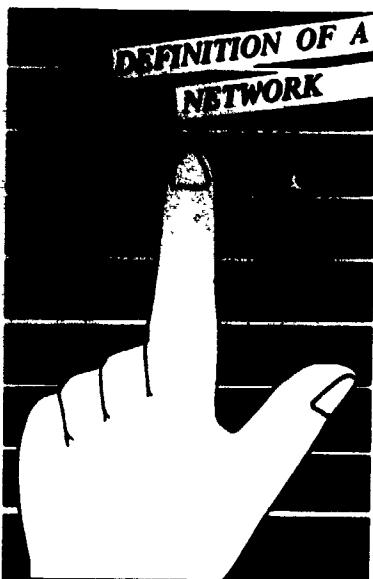
At present however, the most pressing need is for networking at the national level. Recent developments have been promising. More and more infrastructures for information/documentation services are being set up. Population education personnel are being trained on documentation and information services. Some countries have decentralized their population education programmes at the regional, state or district level facilitating the establishment of a nation-wide information network.



Chapter One

DEFINITION OF A NETWORK

CHAPTER ONE



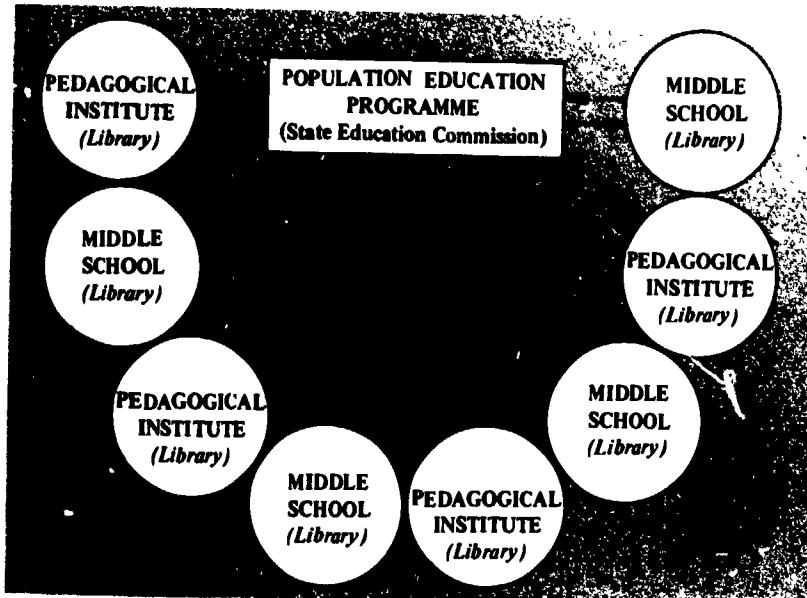
WHAT IS AN INFORMATION NETWORK?

A network is a form of arrangement or an administrative structure that links a group of individuals or organizations who have agreed to work together and/or share resources. Information networking entails the sharing of resources so that the information needs of both actual and potential users of information — from the local to national level — of all network participants are met.

Examples of network systems for China, India, and the Philippines are illustrated.

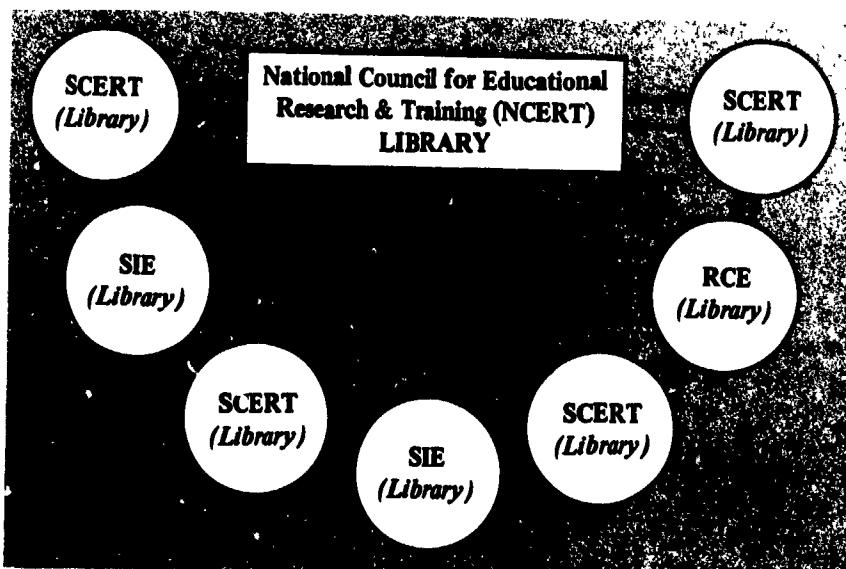
CHINA

The national focal point is located in the Population Education Programme of the State Education Commission in Beijing. Network members comprise 26 pedagogical institutes and middle schools offering population education courses.



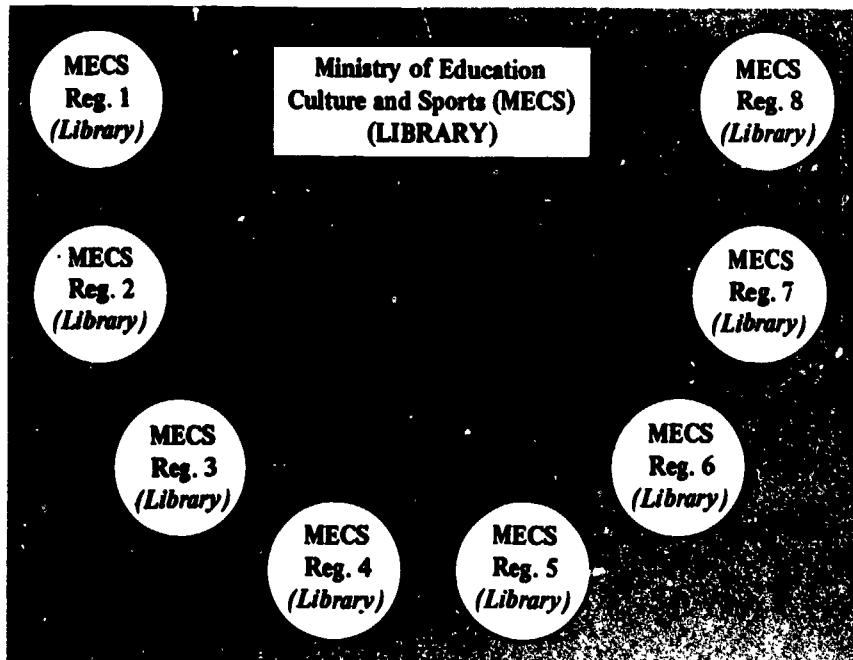
INDIA

The network consists of a national focal point or co-ordinating body located in the population education cell of NCERT in New Delhi. Network members comprise libraries or collections located in the Population Education Cells of the State Council of Educational Research and Training (SCERT) and those located in the State Institute of Education (SIE) or Regional College of Education (RCE) in other states. At present 28 states and union territories are implementing population education programmes.



PHILIPPINES

The national focal point or co-ordinating body is located in the library of the Ministry of Education, Culture and Sports (MECS), based in Manila. Network members comprise libraries or collections in the population education programmes based in 13 regional MECS offices throughout the country.



THE NATURE OF INTERDEPENDENCE AMONG NETWORK MEMBERS

In an information network, more than two participants are engaged in common patterns of information exchange through certain types of communications for purposes which are specified, limited and functional.¹ For example, a number of libraries get together, nominate from among themselves a co-ordinator and agree on a programme of activities and their system of operation. Then every member provides the contribution according to the rules devised together.² Clearly networks are created because of their perceived benefits. Institutions working as a group, rather than individually, stand a better chance of solving common problems easily, more quickly and effectively.

A library without any reproduction facility, such as a photocopying equipment can tap the photocopying services of another library which is a network member.

Quite naturally, there is interdependence among network members in their roles as nodes or as links. Nodes are senders or receivers of information (e.g. libraries, documentation centres, information centres, population education programmes), while links are channels through which information passes (publications, computers, mass media, messengerial or delivery modes).³

To put its functions simply, a network collects information from its members, processes it and uses it in activities agreed upon by the members.⁴ For example, a list of holdings on population education may be gathered from every network member, then processed into a union catalogue or subject bibliographies for dissemination and use by the users of all the network members.

NETWORK MEMBERSHIP

Information network members may comprise individuals or organisations located in different places and bound by an agreement to pursue common goals within certain parameters: what does the network exist for? who are qualified to join it? what costs are to be shared? The negotiation of mutually acceptable agreements and policies is central to an information network.

ESSENTIAL NETWORK OBJECTIVES

The essential objectives of a population education information network are to identify and establish better ways of improving the flow of population education information among member institutions.

NETWORK ELEMENTS

Networks pose fascinating problems of managing people and resources, both within the network and among the individual network members.⁶

Diverse groups engaged in information services must organise, arrive at common objectives, and then assemble and direct the resources or men, money, machines, methods and management skills to do the work.⁷

Information networks usually have the following basic characteristics:⁸

- the members are located in different places (e.g. regions, states, provinces or districts);
- they have ways of organising and transmitting information or data (e.g. the collection of data based on a standard classification system or the use of computerised storage/retrieval system);
- there is two-way communication and transfer of information among the members; and
- they have information resources and produce publications and documentation for members.

The effectiveness of network operations is determined to a great extent by the members' level of commitment to the network's goals, the extent by which members are made aware of one another's activities, the compatibility of the information systems and services of members, the design of co-operative working arrangements to develop and strengthen information flow among members, and the support extended to the network by members and/or their parent organisations or by the government agencies to which they report. However, the most important factor is the members' perception of network benefits and how these benefits can offset the cost of their membership in the network.

Success in network operations is made or delayed depending on how the following essential elements come together in a network.⁸

1. Significant level of financial and organisational commitment from members
2. Consensus among members on policies, objectives, operational agreements, rules and contracts which are drawn up by the network members to ensure balanced distribution of the workload among the members, as well as their equal access to network information and services
3. Members' flexibility/ability to conform to a group decision/effort; unwillingness/inability to conform results in unbeneficial use of the network
4. Complementarity of two or more nodes which have elected to come together based on the following factors:
 - their essential nature/functions (e.g. library, documentation centre, information centre, data analysis, referral centre);
 - their unique capabilities or services (e.g. bibliographical apparatus, holdings, computerized services, research services); and

- their geographical location/position in an organisational hierarchy (e.g. as a part of a bigger organisation, or as an independent information centre)

5. Agreements concerning the assignment of roles/tasks and adherence to specific guidelines. (Members' participation should be commensurate with their commitments and efforts so as to maximise the benefits of the network).

6. Identification of categories of user groups and their needs and delegating responsibilities to the respective nodes for providing services to specific user groups and answering their special needs.

7. Provision of immediate facility for communication among members to enable them to interface with each other. Such capability fosters mutual assistance among network members and enables them to call upon one another for assistance. A directory is compiled and used to identify the expertise of members. Individual requests for their expertise are coursed through a switching centre which in turn forwards them to the network concerned. Provision is made for members to send as well as to receive information using such facilities as computers, telephones, messengerial services and other channels of communications.

8. Development of common standards that foster understanding among the nodes (i.e. standards for organising the collection and for the storage/retrieval of information).

9. Formulation of guidelines in the selection of the network's materials/literature collection, ranging from books to microfilm.

10. Collaborative development of resources. This can include provision for co-operative acquisition and the strengthening of local resources for frequently used materials. The development of multi-media resources is considered essential.

11. Development of a central bibliographic record to facilitate location of items within the network.

12. Formulation of evaluation criteria and procedures to enable the nodes to receive feedback from users on ways to improve their services and network operations.

13. Provision of training programmes for users and operators concerning the network's policies and procedures.

Chapter Two

TYPES OF NETWORK STRUCTURES

CHAPTER TWO



TYPES OF NETWORK

More and more, the world of information is shifting to a user-oriented point of view. In the midst of an explosion in the information world, the central question arises: will we continue to work in isolation, or will we participate in networking organisations and thus influence the current and future options in reaching out to information users?

Networks present a tool; a means to this end. Very much unlike organised information distribution systems, which tend to be centralized and have one-way communication with passive membership participation, networks are usually characterized by the free flow of information among the users. They foster participation, encourage members' initiatives in information exchange and are sufficiently flexible to be able to accommodate the varied needs of users. On the other hand, organized information distribution systems are passive⁹. They are generally limited to a one-way flow of filtered information, which

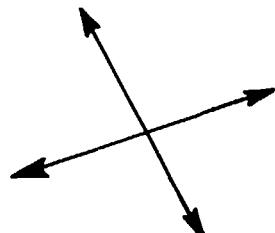
In network schemes, users are integrated as active participants whose needs direct the design of the network. Constant liaison with and monitoring of the user community are essential activities of networks. At all times, networks must abide by these practices, avoiding any tendency to assume a cocoon-like attitude that rules out proper consideration of the needs of users.

To a great extent, these patterns of information flow have influenced the typology or categorisation of information networks discussed in the following section.¹⁰

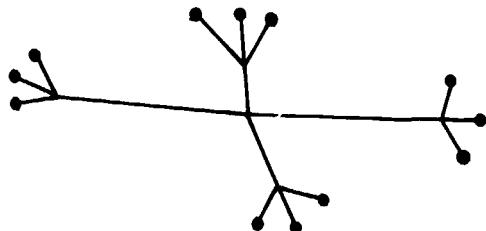
PATTERNS OF INFORMATION FLOW

- **Centralized**

One-way direction of information flow from a central source

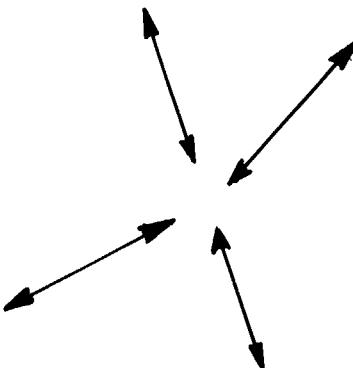


An extended one-way flow of information using regional centres



- **Two-way**

Two-way direction of information flow



are mostly disseminated through written communication. There are pros and cons to this type of information flow. The main benefit of vertical communication emanating from a central authority to out-lying implementers is that it is simple to carry out. A major argument against it is that it excludes a wealth of experience and practical knowledge from the people and institutions at the "bottom"

CLASSIFYING NETWORKS

A network may be described based on one or more of the following criteria.

- *By type of organisational function*

Some networks consist primarily of libraries, while others are mainly composed of information or data centres. Networks can also consist of a combination of functions, like those of a documentation centre cum library; an integrated data, information and library network under the same supreme authority or under different but co-operating authorities; or an independent data centre network and independent library network under the guidance of different governmental offices.¹¹

- *By content or specialized purposes*

Population is such a multi-disciplinary subject area that various sub-networks can be created for each of these disciplines. In addition to a population network in general, sub-networks can also be established to focus on specific subjects and serve specific groups. These include population sub-networks to reach professionals in the education sector, the manpower and labour sector, the agricultural sector, and medical/paramedical personnel.

Making the population education network distinct from the health and population network is very critical from the point of view of users. Not one single information network can be expected to effectively meet the vast and varied information requirements of multi-disciplinary user groups.¹²

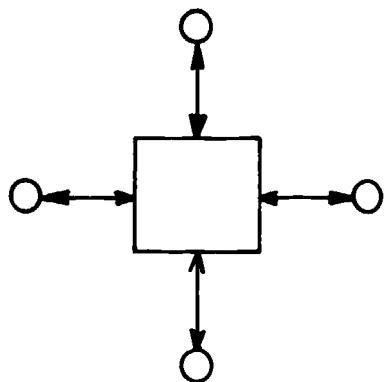
- *By structure or configuration*

Network configuration or organizational hierarchy is an important specification because it affects the communication channels and the flow pattern of messages. The following figures illustrate several possible configurations.¹³ Nodes. (i.e. a participating library or information centre) are represented by dots and squares, while lines represent the communications links.

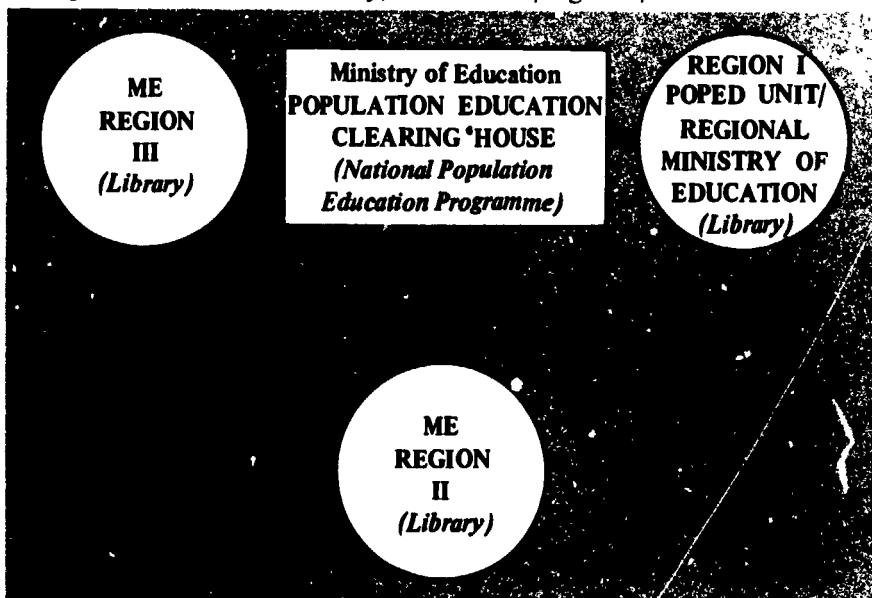
DIRECTED

Directed/ Centralized Network

Members/users are interconnected through a co-ordinating centre

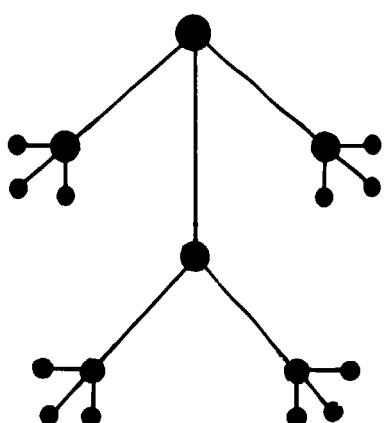


Example: The national population education programme based in the Ministry of Education serves as the co-ordinating unit directing the flow of information to and from the branches (i.e. state/regional/district ministries and educational research councils, middle schools or pedagogical/teacher training colleges, various departments of the ministry) at the state/regional/district levels.

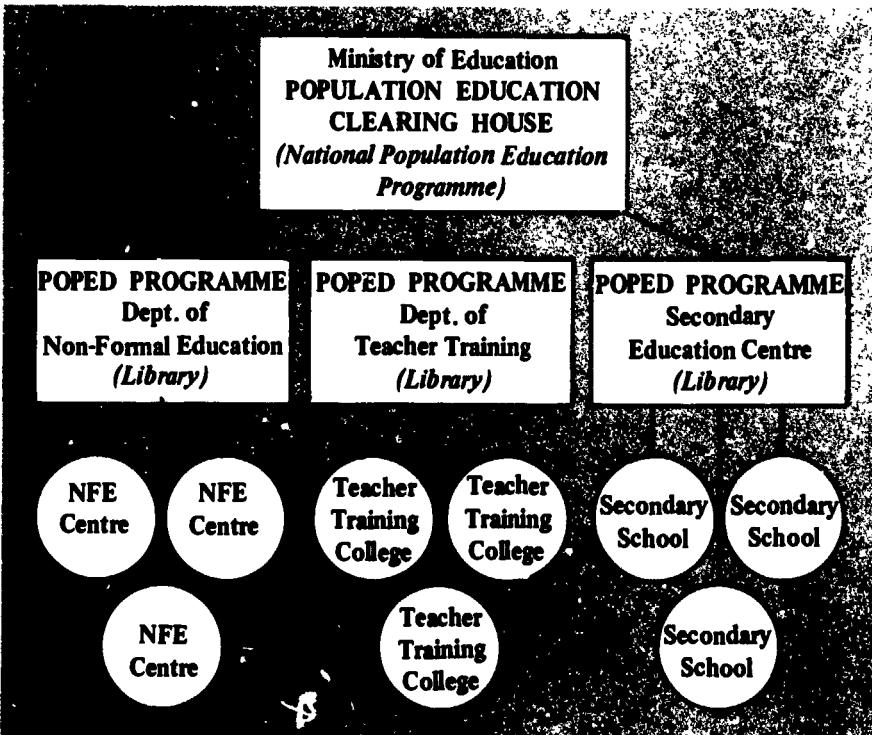


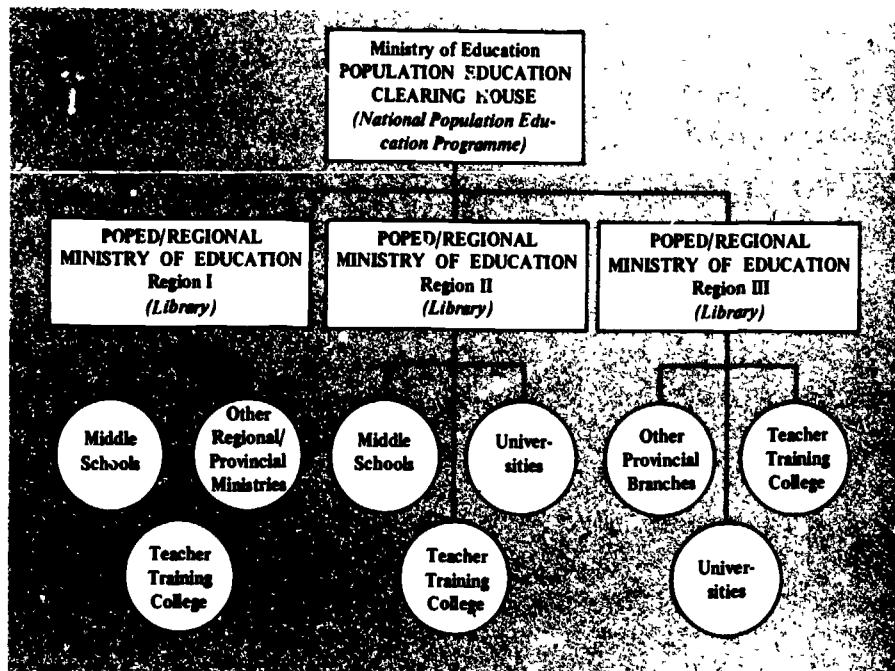
Directed/ Hierarchical Network

Members/users are grouped in a hierarchical order of increasing/greater resources and expertise



Example: At the central level, the overall co-ordinating unit is the national population education programme at the Ministry of Education. Directly under the co-ordinating unit are the network members or branches of the Ministry of Education at the state/regional/district levels. Each of the state/regional node will in turn serve as the state/regional co-ordinating unit for participating nodes/members located around that particular state/region. These may include middle schools, teacher training colleges, higher education institutions, non-formal organizations, and local branches of other ministries.

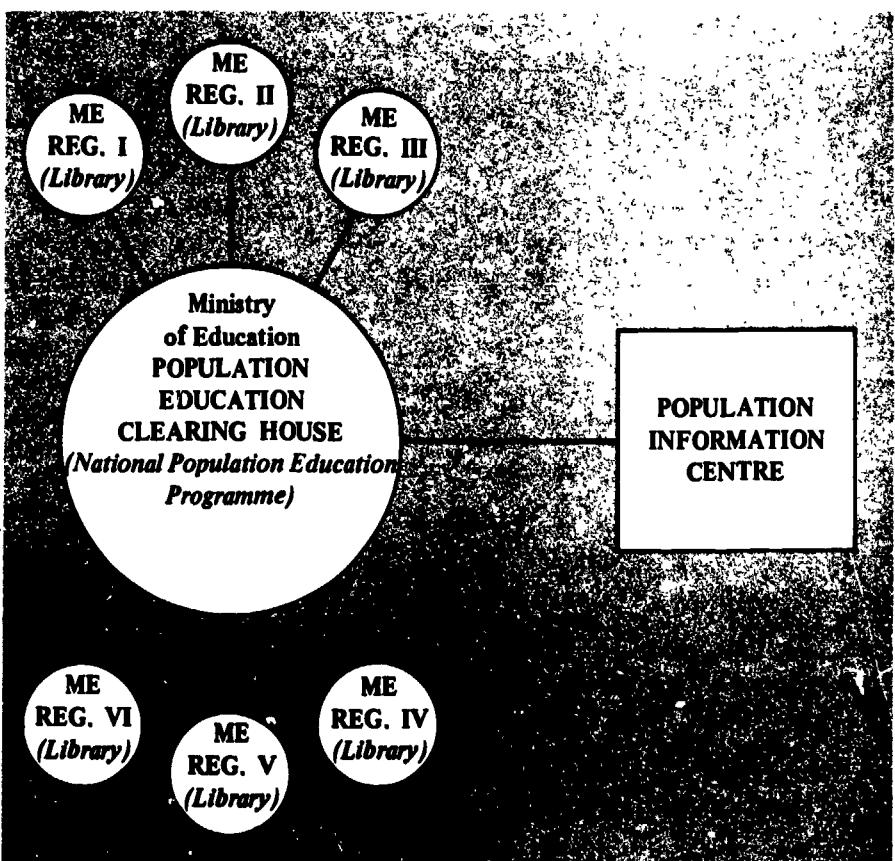
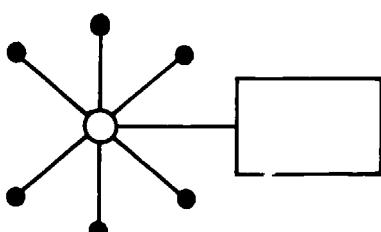




Directed Network, Including Specialized Centre

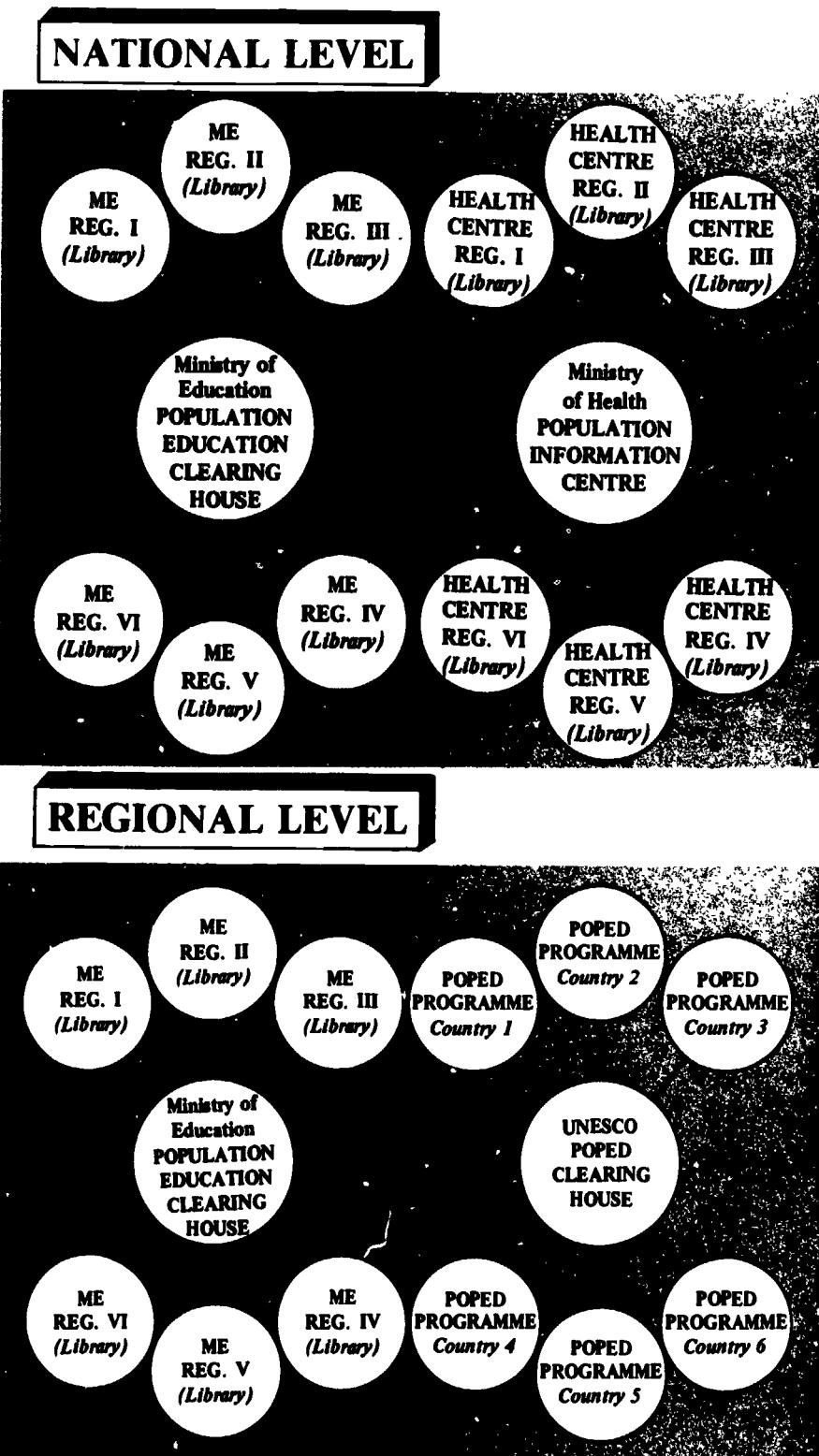
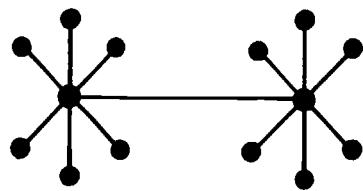
A directed network interfaces with a specialized centre for the benefit of the network members

Example: In this type, network configuration no. 1 (i.e. directed centralised) is linked to another specialised centre only through the co-ordinating unit, which in turn passes on the information to its members. Thus, the national population education programme's clearing house interfaces with the population information centre, or with an educational research centre.



Interface of Two Directed Networks

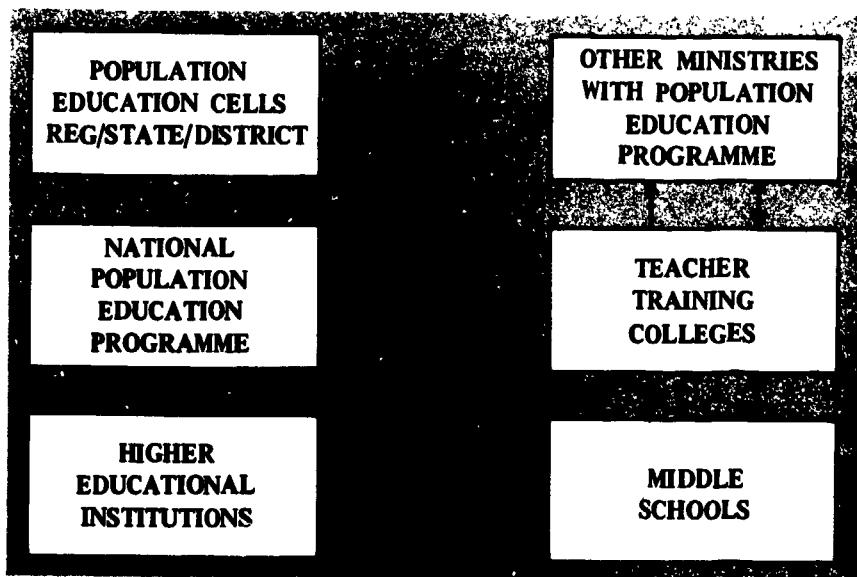
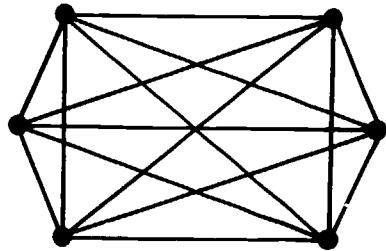
As national or regional centres begin to develop, there may be a need to link up related units nationwide or regionwide.



NON-DIRECTED

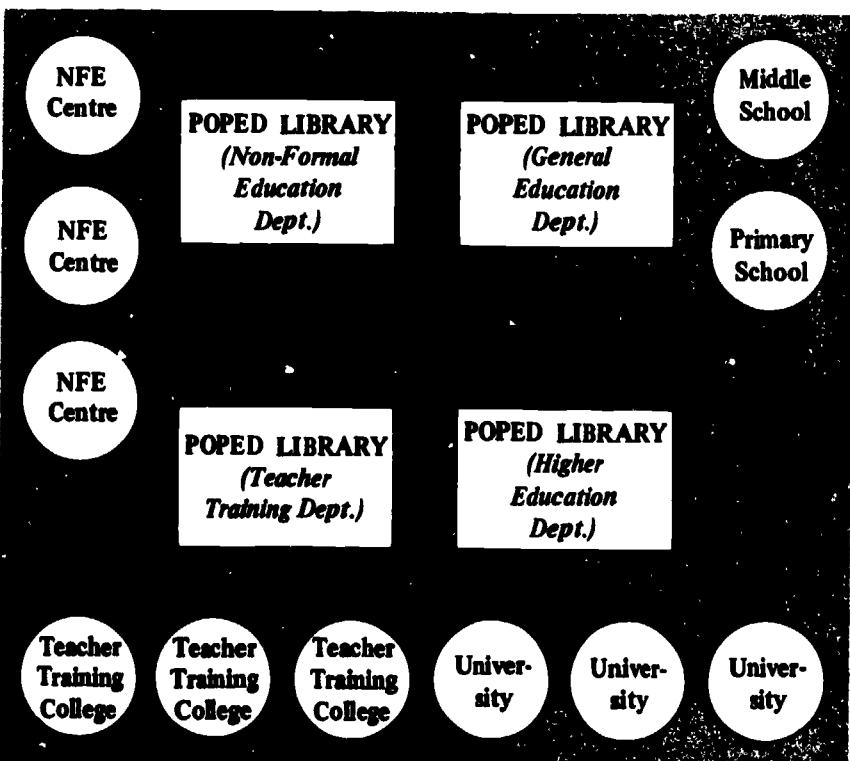
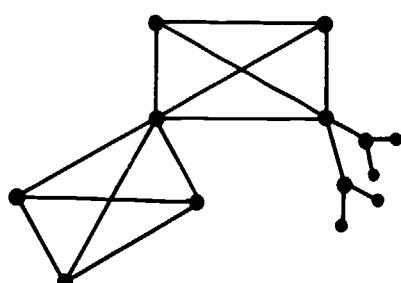
Non-Directed/ Decentralized Network

Each member user is connected with every other user, without any member acting as overall network co-ordinator.



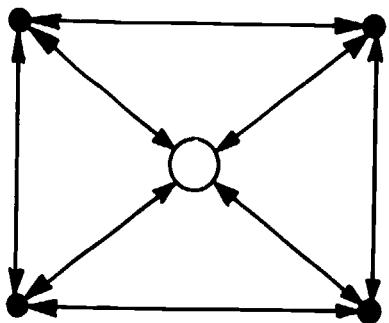
Non-Directed/ Mixed Mode Network

Each member represents the interests of its own users through direct connection with all other network members.

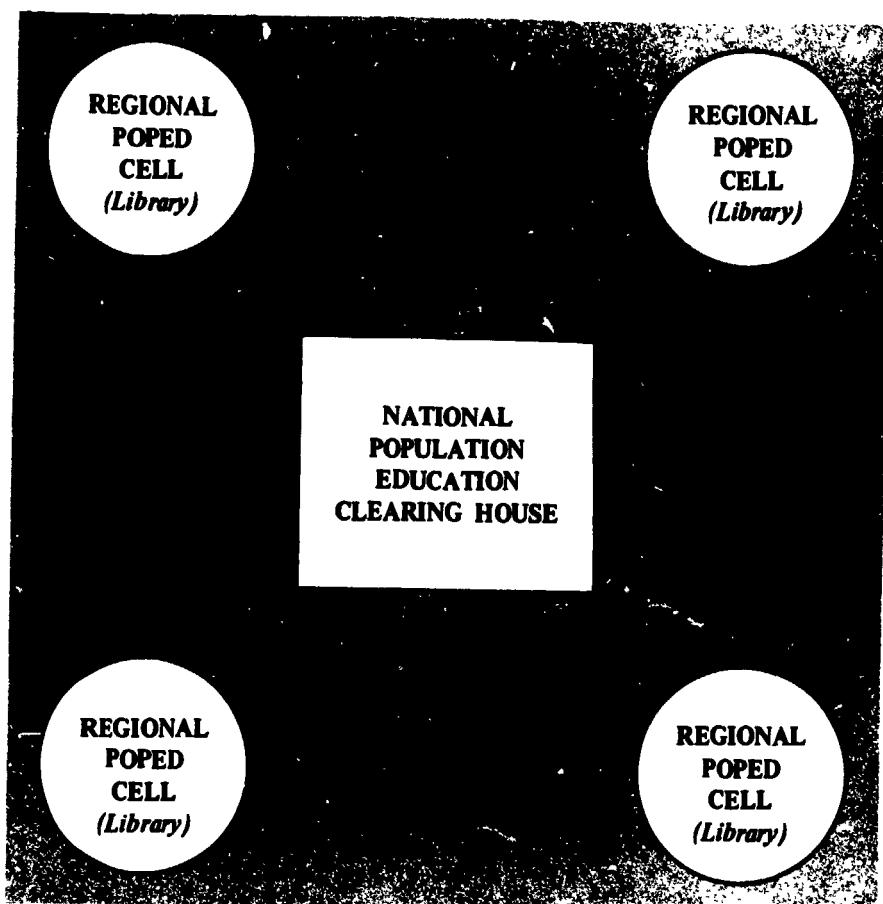


Combination of Directed and Non-Directed Network

This consists of a combination of clearing house or co-ordinating unit node and the freely interacting bilateral/multilateral arrangement.



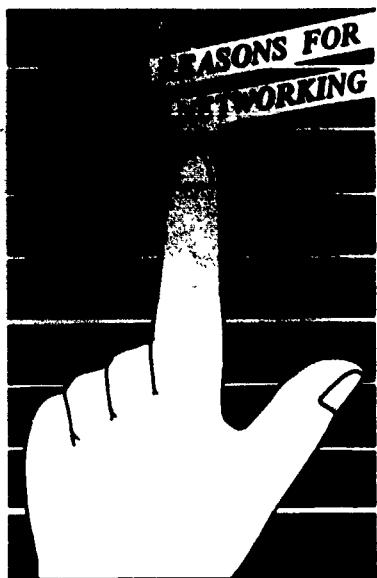
Example: The national population education programme's library serves as the clearing house or co-ordinating unit. Communications among members (i.e. population education branches at the state/regional/district levels) may either be direct or coursed through the co-ordinating unit. In this case, the clearing house mainly serves as a facilitator rather than director.



Chapter Three

REASONS FOR NETWORKING

CHAPTER THREE



Information acquisition, storage and retrieval are recent developments in the field of population education. Countries which have allocated funds for the purchase of books have been able to establish and expand their collection or information resource bases faster than those which have relied almost exclusively on donations of free materials.

WHY GO INTO NETWORKING?

At the outset, it must be pointed out that not one single library or information resource base can handle the voluminous amount and range of information currently available, plus information expected to be generated in the future.¹⁴

Population education programmes which extend no more than a *lip* service to information building face the risk of isolating themselves and becoming inadequate and ineffective in fulfilling their mission. Regardless of the stage of development of their information collection, population education programmes are now compelled by circumstances to participate in resource sharing and in networking. These circumstances are described in the following section.

1. Increased volume and range of literature on population education

In the 1970s, national population education programmes in the region were being implemented in six Asian countries only. Today, UNFPA-funded and UNESCO-technically assisted national population education programmes are being implemented in 15 countries in Asia and ten in the Pacific.

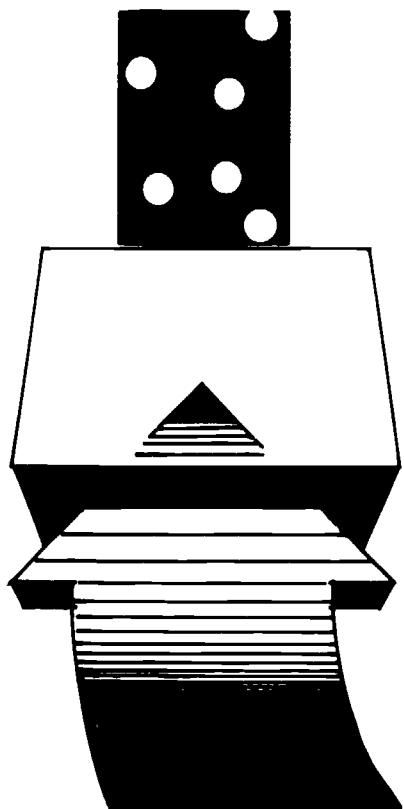
The rapid growth of population education programmes, in number and in scope (i.e. extending from in-school to out-of-school), alongside changes in government policies and intensified activities in population education have brought about new dimensions to population information. Consequent increases in the volume and range of population education literature is evident. In 1970, known publications produced by national population education programmes were a handful. Today, the UNESCO Population Education Clearing House estimates a production total to-date of up to 5,000 titles of publications and audio-visual materials by 25 national population education programmes and other related projects in the region.

Quite unlike the earlier years when population education documents were mostly prepared in the form of reports of planning meetings, the range of current population education literature includes curriculum materials, training manuals, syllabuses, research studies, audio-visual materials, and policies and management case studies and reports.

This development supports the assumption in the world of information in general that information is increasing at an exponential growth rate of 13 per cent per year, meaning that the total volume of recorded information is doubling every seven or eight years.¹⁵ This so-called "information explosion" is clearly being felt in the field of population education. The phenomenal growth in information calls for improved access to population education information, a need which networks can easily fulfill.

2. Adoption of new thrusts in population education programmes.

Networks in population education information can backstop the development of new thrusts in population education programmes. By providing up-to-date information to population planners and decision-makers, networks facilitate the planning and implementation of population policies and activities.



The value of information as support to a more efficient implementation of population education programmes in the region was stressed during the Regional Consultative Seminar on Population Education held in September 1986 at UNESCO, Bangkok, Thailand. This seminar is held every four years to review developments and trends in country programmes, assess emerging needs and requirements, and co-operatively develop an action plan to meet new programme thrusts in population education.

During the 1986 seminar, a request was made to countries for them to document the processes and experiences gained in the implementation of their population education activities and to disseminate such information through a network mechanism.¹⁶ The idea is for other countries to adopt or adapt these processes and experiences in accordance with their own population education programmes.

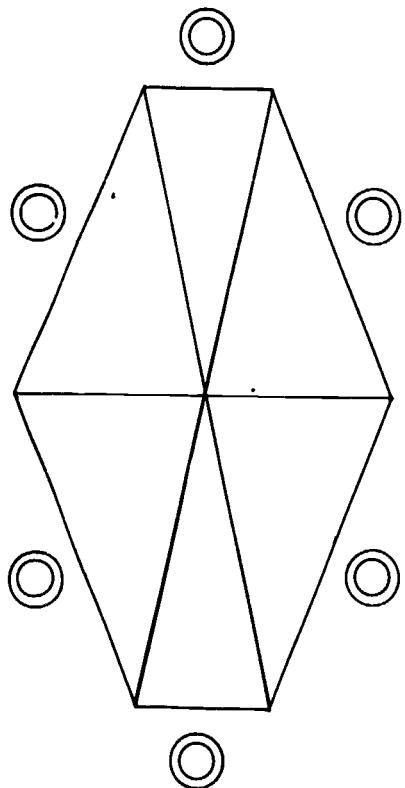
This request was made based on the seminar's findings that actual experiences in population education implementation are generally under documented, especially at the national level. In reporting their activities, it was found that the majority of countries showed more interest in detailing their outputs, rather than in describing the processes involved in undertaking their various activities. Their reports left out such important matters as their activities guidelines and principles, the range of resolved/unresolved problems and conflicts, and the management of resources. The omission of these and other equally vital information represented a tremendous loss for many population education professionals who could have benefited from them.

3. Multiplicity of institutions engaged in various aspects of population education information activities.¹⁷

The multiplicity of data gathering and disseminating institutions working at many levels and independently of one another presents the need for networks capable of co-ordinating their activities.

In population education, information users and producers come from the out-of-school sector (e.g. ministries of education, health, agriculture, social welfare) and from the school sector (e.g. colleges, universities, teacher training colleges, secondary and primary schools).

Within the broad field of population, three networks have been established so far. These include POPIN (Population Information Network) International, the Asia and the Pacific POPIN



and the ASEAN POPIN. Countries which belong to any of these networks have also established their respective national POPIN. National POPINs are usually located in such offices as commissions on population or in the ministries of planning and development and of health.

To be sure, institutions engaged in various aspects of population education services cannot persist in a parochialistic approach to the collection and utilization of population education information. By organizing themselves into a network, these institutions can co-ordinate and expedite the flow of information between information producers and users, while also reducing the duplication of information generation and dissemination activities. If needs are to be met, users must be reached wherever they are. Users' access to information can be widely improved if isolated population education information centres belong to a network, thus saving users' time and effort in data collection and search.

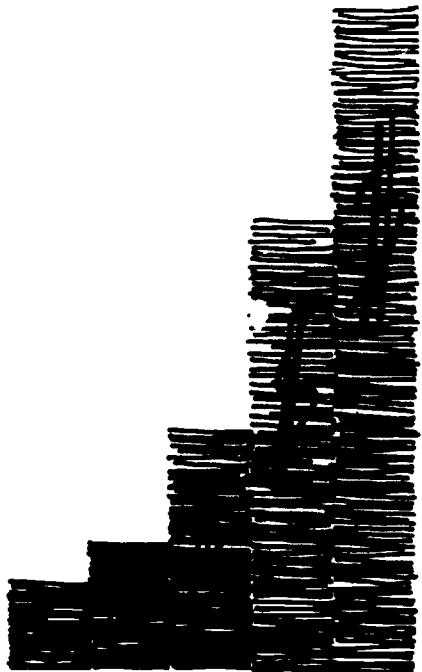
A problem related to the multiplicity of organizations engaged in population education activities is their geographical isolation from one another. This situation handicaps the collection and dissemination of population education data. In some countries such as India and China, where national population education programmes have branches at the state and regional levels there is an urgent need to link these branches, if they are to be kept updated of one another's most recently produced information/material.

National level networks serve domestic needs as well as systematically link related agencies within the country. They also provide a regional link with other population education information programmes.

4. Rising costs in the collection of population education information and the need to maximise the utilization of resources.

The costs of library services alone have been on the upswing in recent years. The high rates of books and audio-visual materials hinder libraries from maintaining comprehensive collections. While some national population education programmes, such as China's and Viet Nam's, have initially allocated large sums of money to build their population education collections, many of these programmes have since decreased such budgetary allocations. Generally, countries allocate an average of US\$2,000 per year for buying books and audio-visual materials and for subscriptions to periodicals.

As to be expected, almost every library has a finite budget for acquisitions.¹⁸ Libraries therefore tend to limit their purchases to cover materials which comprise the core collection in population education, plus others that are in constant demand by local users. Budgetary constraints amidst rising costs call attention to the usefulness of co-operative arrangements in sustaining regular services and acquisition activities, and providing new ones as costs are spread over many co-operating institutions.



In Viet Nam, where the population education collection in five educational centres is being expanded, an acquisition scheme has been recommended, as follows: one centre concentrates on acquiring all periodicals on population education, while the rest can specialize on specific types of knowledge base and population education materials. The centres respective collections will not be viewed as being owned individually but co-operatively by all five centres.

A library which does not adopt some kind of resource sharing will eventually decrease the volume of published information that it can cover and handle within its limited means, resulting in dissatisfaction and frustration of its users.

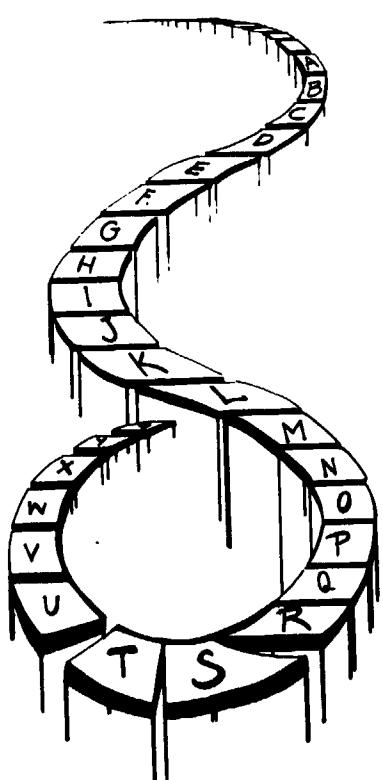
In addition to assigning specialisations in materials acquisitions and co-ordinating subscriptions, there are many other co-operative ventures which libraries can go into. These include co-operative cataloguing, joint bibliography development or joint directories, training, duplication programmes, and delivery/mailing services. Information needs which are beyond the capacity of small information centres can be met using the experience and resources of other network members. Projects which are beyond the resources of any single unit can be undertaken jointly (e.g. research, training, information repackaging).

5. The need to improve the mobility of data.

Although more and more population education data and information are being collected, much of these are largely limited to programme elites, scholars and policymakers who are already receiving an over-supply of information, while local¹ users (e.g. teachers and trainers) are practically starving for information.¹⁹

For example, many population education libraries in the region are located in the central office of the Ministry of Education and often cater to select clientele. Major resources within such libraries are used to secure the needs of this relatively small sector of the population, to the disadvantage of large groups of population education professionals who maybe directly involved in the actual teaching of population education at the local level. Resource sharing in a network benefits large numbers of users.

Mobility of data is also hampered by other factors. For example, findings of research studies are not always circulated to people who should know of them, for two reasons: the findings are not formally published, or they are reproduced in a limited number only. Another aspect of the problem is that while an organised body of information is available, it may be in media forms not suited to user needs. As a result, available resources are underutilised and considerable efforts and lengthy searches are needed to locate and obtain information. More importantly, time-consuming data and information search has, in many cases, influenced a great many to undertake their own data gathering efforts, thus duplicating a work that may have long been completed but whose results may not have been sufficiently disseminated.²⁰



By using similar and compatible information collection and retrieval techniques and standards, network members enable the users to locate needed information at no time and to identify the form that it is in. Network members are thus required to use similar and standard data identifiers and classification systems and compatible computer hardware and software.

Networks also provide two-way communication between the user or person accessing the information and the information source.

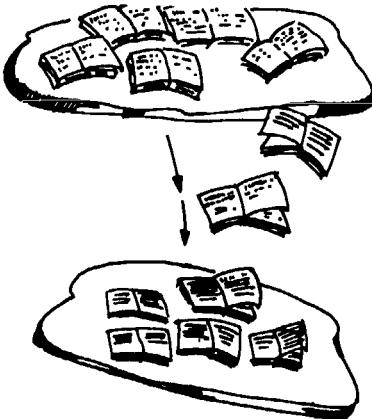
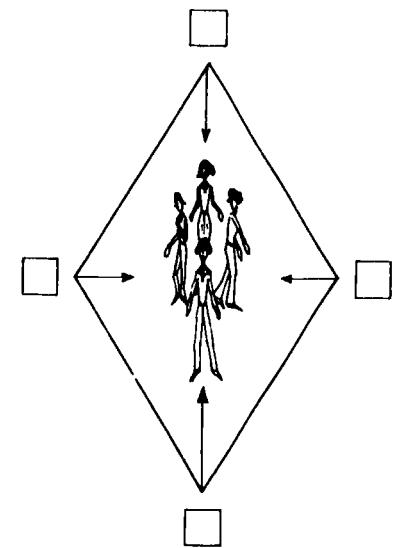
6. The need for opportunities for professional contact among population education specialists.

A network encourages professional contact among population education documentalists, librarians, information and communication specialists while also fostering opportunities for their continuing education and the professional development of effective documentation and information systems in the field of population education. Experiences and expertise are shared through meetings and training programmes. Effective solutions to common problems can also be shared and discussed.

For example, the annual internship programme on documentation and information services in population education, held by the UNESCO Population Education Clearing House, provides a forum for various information personnel to establish linkages among one another and to learn about their respective specialisations.

7. The need for improved flow of population education information to and from information-poor countries

The establishment of population education information networks in the developing countries can help improve the flow of information to and from the developing or information-poor countries. At present, information resources in population education are located primarily in the developed or information-rich countries.²¹ National level networks can improve the administrative efficiency of data exchange and the level of mobility of data in general — either directly or through the UNESCO Population Education Clearing House.



MOTIVATION

In view of the fact that the consequences of network participation are far-reaching, members must naturally adopt healthy and favourable attitudes towards networking. Network members must think of themselves as being part of a co-operative venture.

This would require, first of all, the infusion of a co-operative spirit among network members, a process which does not happen automatically. Getting members to participate in network activities is an arduous task and much depends on the nature/level of their motivation that can be instilled.

While there may not exist hard and fast rules on how a deep sense of personal motivation can be instilled among members, certain interactions with them can help build their interest in networking. Such interactions can be deliberately aimed at influencing members' thinking on the following matters.

1. Value of extended resources.

In recent years the purchasing power of libraries has decreased while, quite ironically, their service goals have increased.²² These developments have influenced many a library to view a "collection" as being not only the materials it owns but also includes the materials owned by other libraries with which it maintains a certain level of co-operation.

Clearly as libraries begin to rely increasingly upon one another for materials, a library may no longer be able to single-handedly provide almost complete support to its users.

2. Level of reciprocity.

It should be stressed that co-operative network ventures require a level of co-operation that goes deeper than the more or less clerical types of liaising previously associated with interlibrary co-operation. The substantial benefits yielded by network ventures cannot be doubted. However, it should be made clear to potential members that benefits may vary depending, in the first place, on the effort they exert to accrue such benefits.

To accommodate all the network functions satisfactorily, significant investment would have to be made by members in terms of ensuring effective communications among them and in sharing their resources as well as capabilities.

3. Career fulfillment through network participation

Through network participation, staff of network members receive a two-fold benefit: professionally, they acquire skills/knowledge through interaction with their colleagues; personally, they become better motivated at work, knowing that the success of the network derives in part from their participation.

Some representatives of network members may display some reluctance to agree to certain network procedures with which they are unfamiliar. This situation presents a good opportunity to provide professional training or re-training, as the case may be.

4. Cost is not a barrier.

It must also be pointed out to potential members that cost considerations as a barrier only become more pronounced when they are not able to see nor appreciate the benefits of joining a network. It is therefore important that members realise the value of a network. To many librarians, such value is clear: network participation brings libraries to the forefront of library/information/documentation activities.

If major activities incur substantial expenditure, costs may have to be apportioned among members. On the other hand, budgetary restrictions that bind individual members may constrain the distribution of costs. In this case, network costs may have to be defrayed through external funding in the form of government subsidies, assistance from international organizations, foundations and other private organizations, collection of payments from users, payments or donations from groups or projects having high demands for the network's services and bilateral assistance from governments. Any of these options can be combined in order to help members cope with the financial burden of running a network.

5. A question of self-interest.

Network benefits are to the advantage of all members. To improve members utilization of various network services, they must be encouraged to make their needs known and to share their expertise and resources as much as possible. This also enhances the value of a network.

Network participation is a matter of self-interest. An institution puts time and resources into networking activities because it gains from them. It should also be pointed out to the members that their participation in network activities does not, and should not, compromise their own internal services. They should also be advised not to be discouraged by the substantial time lag between joining a network and actually being able to use its services. A likely source of concern is the length of time required to process specific information requests and to disseminate information. Members can be reassured that, beyond merely providing quick service, a network seeks to ensure that all members – regardless of size – are adequately served.

At all times the one spirit that should prevail in a network is that of co-operation, not coercion.

6. Authority relationships.

Members involved in a nascent network must establish formal relationships, allocate executive authority and determine the ground rules of the network. It is advisable to remember that problems associated with authority relationships are not only institutional, administrative or financial in nature. They can also be attitudinal.

The apportionment of networking costs among members would have implications on authority relationships, particularly in networking at regional or local levels. Reduced authority by traditional administrators may also be another fear. As these projected fears substantially influence members' decision to join a network, a balanced perspective on the matter of authority relationships should be openly shared with all members.

7. Clarification of members' duties and rights.

Some libraries are bound to definite policies drawn-up by their host institutions and they cannot be expected to bend these regulations without first securing permission from a higher authority. However, other libraries enjoy greater autonomy and may only be restricted by limitations of time and personnel.

These factors would have to be considered when drawing up members' rights and duties.

8. Range of network services.

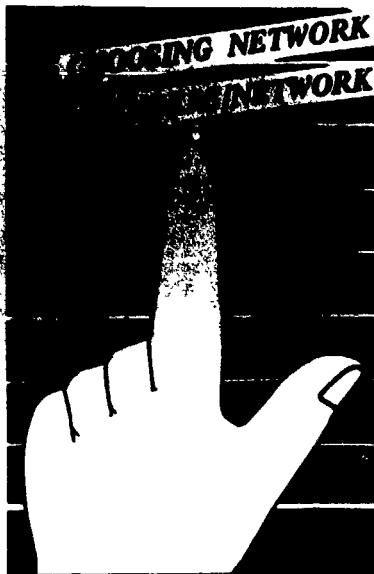
Since networks depend on the voluntary input of members, it makes sense for members to join networks where they could be both givers and receivers. That is, they would naturally choose networks which provide services and activities that are of high interest to their own user communities.

Members may also decide to opt for networks with a narrower range of services. The thinking being that the narrower the scope, the more comprehensive and in-depth the service.

Chapter Four

**CHOOSING NETWORK
MEMBERS/NETWORK**

CHAPTER FOUR



CHOOSING NETWORK MEMBERS/NETWORK

In the population education field, potential network members are easily identifiable. At the national level are the libraries of various departments of the Ministry of Education which implement population education activities. These departments include those concerned with non-formal education, teacher training, secondary education, vocational training, kindergarten education, etc.

At the local level (i.e. state/regional/district), potential members include the population education cells or branches lodged in the regional offices of the Ministry of Education or in the state offices of the National Council of Educational Research and Training or Institutes of Education.

At a lower level, potential members include non-formal education centres, teacher training colleges, secondary schools, universities and offices of the Ministries of Health, Labour, Agriculture,

It would be helpful to evaluate the characteristics of potential network members in terms of their existing resources and capabilities, as well as their potential for growth. Their expected contributions to the network can be deduced from such an evaluation.

Central to members' participation in network operation are their status insofar as the following criteria are concerned.

1. Strength of collection and range of functions.

The majority of population education programmes have organised their materials into small collections manned by non-librarians. Some are included in the main library of the Ministry of Education, while others are incorporated in a documentation or information centre which is better equipped and is well-manned. The strength and capacity of a potential network member will depend on the type of function and services it currently offers. Is it offering library services only? Documentation? Reference/referral? Or is it a large information and data centre? These services are explained in some detail in the following section ²³

LIBRARY

Libraries are now associated with the largely passive function of a depository for documents, organized and maintained for reference and study, the emphasis is on the collection and circulation of documents.

A library collects, catalogues, shelves or stacks and lends primary sources of scientific and technical information in the form of books, periodicals and maps. Its collection and catalogues are accessible to users who locate information they need on their own initiative. A library also provides access to its collection of secondary sources, such as abstracts, indexes and bibliographies.

DOCUMENTATION CENTRE

A documentation centre also functions as a repository for documents; greater emphasis is placed however on distribution and dissemination functions.

A documentation centre selects, acquires, stores and retrieves specific documents in response to requests; announces, abstracts, extracts, and indexes documents; and disseminates documents in response to requests for documents or for content. Information may be disseminated in a highly processed form. Translations or reprographic facsimiles of original literature can be provided on request.

A specialized documentation centre scrutinizes and evaluates primary or secondary sources of scientific and technical

Social Welfare and other ministries which are implementing population education activities.

information which are usually neglected by libraries. Three divisions may exist within a documentation centre. These are as follows:

- library division, which is responsible for the centre's collection, acquisition, cataloguing, storage and display functions;
- documentation division, which processes certain items in the collection, at its own initiative or in response to users' requests; and
- publishing division, which compiles, edits and reproduces documents by printing, photocopying, duplicating and other processes.

CLEARING HOUSE

This is a document handling system with the main function being to provide a switching operation which performs either of two functions or both. It allows access through referrals to appropriate resources, or serves as a central agency for the collection, classification and dissemination of specialised information.

A clearing house may have six functions: library, documentation, audio-visual production, publications, organizational communications and data processing. Like documentation centres, clearing houses need to engage the services of subject specialists. However, its services are more extensive than those of a library or a documentation centre.

- It conducts data search and collection, as well as publishes materials.
- It may act as a link between groups engaged in research in the same field.
- It may publish compilations of previously unpublished materials and seek out users instead of waiting to be approached by them.
- It may evaluate available information, adapt and process it to meet the requirements of potential users instead of merely producing lists of information sources.

REFERRAL CENTRE

A referral centre generally performs the task of referring enquirers to sources of information, in addition to other functions.

A referral centre may perform any or all of the following functions: collection of information about data and information resources within a special subject or mission; preparation of a

comprehensive inventory of the kinds of data/information/services available from various sources, including a detailed subject index to facilitate access; and, guiding users to appropriate sources of information.

To facilitate referral, data concerning information resources are compiled in a directory. Specialized index card/index files maintained by referral centres cover (a) research studies, bibliographies, surveys; (b) projects sponsored by the government and private sectors; (c) available experts and consultants; (d) conferences, seminars, workshops and training programmes; and (e) funding/aid authorities, organizations or agencies.

INFORMATION CENTRE

An information centre undertakes the acquisition, selection, storage, dissemination and retrieval of a body of information on a clearly defined operational field or specific mission.

It publishes indexing bulletins, translations and research briefs. It may also analyse/synthesise or distill information and create new knowledge. If this additional task is performed, the centre is designated as an "information analysis centre." Analysis may focus on research, government reports and raw data.

An information analysis centre has on its staff scientists, technologists or subject specialists. They undertake exhaustive data gathering on a well-defined subject field, analyse and evaluate the data obtained. The information is consequently condensed/stored in files, data sheets, and reviews, and disseminated through current awareness services, publications, and responses to enquiries.

DATA CENTRE

This is an organization handling raw or partially processed data or results, including census-type data on population and commodities as well as data on pure science and the social sciences.

The basic services of a data centre include data evaluation, compilation and dissemination, and referrals. A data centre may be attached to a university, a research institute, a data evaluation centre or a major information centre.

2. Operating budget.

A decisive factor is a member's availability of/access to financial resources viewed from two sides: the consequent economy in the system of information services provided by a

network; and, on the other hand, the consequent financial burden for poorly funded members if network costs are to be shared.

For example, some national population education programmes have small budget allocations for the purchase of books. Catalogue cards, photocopying paper and ink, bookshelves and publications are often not provided for.

3. Approval of parent organization.

Some potential members may have to secure approval of the parent organizations to which they are accountable. In some cases, parent organizations have the power to change the direction and/or funding of subordinate institutions and would therefore have to be consulted before these institutions can join a network.

4. Members' needs and expectations.

In addition to the services which potential members can render to the network, their needs and expectations should also be surveyed. The findings of such a survey provide the basis for the formalization of standards for co-operative services within the network.

5. Individual/institutional members together.

There can, of course, be a combination of both institutional and individual members in a network. Individuals in a network tend to be more active but may lack the ability to disseminate ideas and information. Institutional members may be more formal but have better disseminating arms.

6. Multiplicity of network membership.

An institution may belong to more than one network without disrupting its relationships with any of the networks of which it is a member.

It is also worth noting that special subject area collections of a library may be members of a subject specialty co-operative while the library as a whole is not.

Different Characteristics of Three Types of Network Members: Libraries, Clearing Houses, and Documentation Centres:

Characteristic	Library	Documentation Centre	Clearing house
1. Document Coverage	• Comprehensive collection • Specialized collections	[Empty box]	[Empty box]
2. Size of Collection	• Large • Small	[Empty box]	[Empty box]
3. Document Organization	• Standard • Unique	[Empty box]	[Empty box]
4. Transformation	• Information-on-Information • Consolidation • Awareness/Notification	[Empty box]	[Empty box]
5. Outreach	• Other similar users • Outside groups/Individuals	[Empty box]	[Empty box]
6. Distribution	• On site • At a distance • User feedback • Supplier feedback	[Empty box]	[Empty box]
7. Networking	• Directed • Non-directed	[Empty box]	[Empty box]

CRITERIA FOR CHOOSING A NETWORK

No matter how similar some institutions may be, they do not necessarily share similar environments and circumstances. It is therefore inadvisable for an institution to make a decision on a network by copying the decision of its peer groups.

The suitability of a particular network must be carefully weighed. Some factors worth immediate consideration include the following:²⁴

1. Stability of the network.

Potential members are naturally apprehensive about associating themselves with a system which may not survive. A certain measure of stability is reflected in the number of years that a network has been in existence, the extent of its geographical coverage and its roster of members.

2. Cost-benefit.

A closer scrutiny of a particular network will reveal the potential cost benefit that may accrue to a member. Knowing this will help in deciding for or against joining the network. It may be that the network is unable to pay for itself and would therefore require financial help from members, or it may be that the network operations are requiring more effort and staff time than a member is willing and able to give.

3. Services offered by a network.

Potential network members should be more inclined to seek networks that offer services which fulfill the needs of their users and their long-range goals.

Chapter Five

GUIDELINES FOR NETWORKING

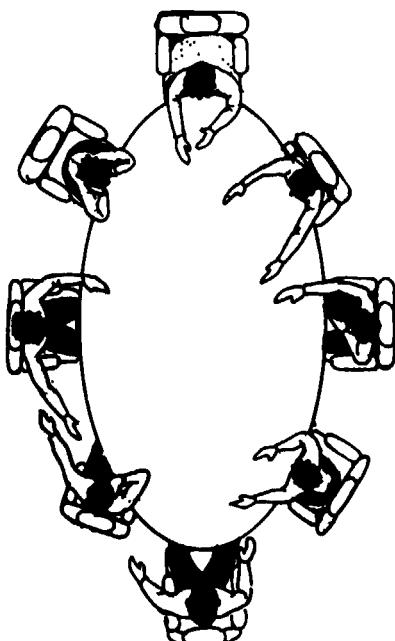
CHAPTER FIVE



GUIDELINES FOR NETWORKING

Step 1.

Hold brainstorming sessions to discuss the concept of networking and the potential benefits of joining a network.



An informal meeting can be initially convened by a small group of librarians or information personnel involved in the provision of population education information services. For example, a national population education programme set up in the Ministry of Education can call such a meeting. Those invited to attend will include librarians from participating institutions, such as teacher training institutes, secondary schools, colleges and universities, and other ministries (e.g. health, labour, agriculture, etc). It is assumed that the libraries in these institutions and ministries have considerable materials on population education in their collections. It is also assumed that these institutions and ministries are users/producers of population education information.

The discussions will focus on two aspects. The first one concerns the concept and objectives of networking. The second is regarding the benefits that one derives from such networks. The first aspect should touch on the following salient points:

- definition of networking;
- advantages to be gained and pitfalls to be avoided in networking;
- outstanding examples of networking activities; and
- ultimate objectives of networking.

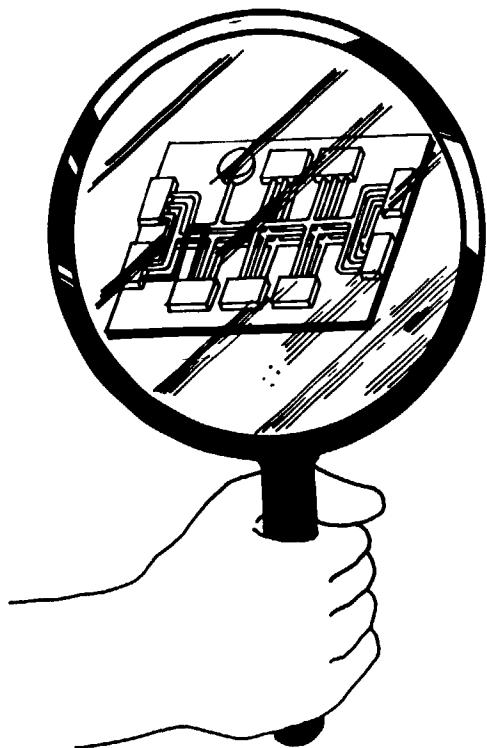
The second level of discussions deal with identifying needs, the range of problems that can be solved through networking, and other related considerations, as follows:

- What is in it for the library, and the parent organisation?
- How can networking improve the library's services and functions?
- What are the economic considerations?
- What contributions can this individual library make to networking?
- What role or roles can the library effectively play?
- What does each individual library have that might constitute a unique contribution to co-operation?

It is at this point that the crucial decision is made for or against networking. Those in favour of networking will obviously proceed to Step 2.

Step 2.

Examine existing networks. Decide whether to join an existing network or to create a new one.



One of the most important activities in Step 2 is the process of identifying and collecting information on relevant, existing networks. A major advantage in joining an established network is that the groundwork — the necessary organisation and legal arrangements — has already been done.

The best areas to explore are the fields of education and/or population. A search may turn up several available networks so that winnowing of possibilities will be necessary. Once the networks of greatest potential value are identified, further discussions may look into their objectives, membership composition, costs, programmes, activities, and requirements.

In Asia and the Pacific, the three kinds of information units that have been set up, mostly with UNFPA assistance, are as follows:²⁶

1. Population education units which repackage scientific and technical information in appropriate formats for in-school and out-of-school professionals and students.
2. Communications units which repackage scientific and technical information in appropriate formats for the general public, and consequently disseminate the repackaged information through the mass media and direct campaign.
3. National population information centres (PICS) which collect, organise and disseminate scientific and technical information both in its original format and in repackaged formats to researchers, teachers, university students, policymakers and programme personnel, including staff of population education units and communications units.

Insofar as the third kind of information is concerned, a network has already been established to link sources of population information in the countries directed by the national population information centre. This information network is known as POPIN.

POPIN is established at four levels:

1. POPIN International, established in 1981 within the UN Secretariat, is charged with overall responsibility for co-ordinating a global population information network.
2. Asia-Pacific POPIN, organized by ESCAP at a regional level.
3. ASEAN POPIN, organized at a sub-regional level and funded by the Australian Government. It has two aims: to further develop and strengthen the core population information centres, as well as all the supportive units within the larger national information network; and to further develop and strengthen the linkage of activities, within and between the network of libraries, population information centres and clearing houses.
4. National POPIN, with the focal point usually located in a separate population office (e.g. commissions on population, or national family planning co-ordinating boards), or within a

ministry, such as the Ministries of Planning and Development, Health, Social Welfare). Participating agencies in a national POPIN include all agencies engaged in population and related activities. The Ministry of Education which usually operates the national population education programme is one of them.

At this point, the group may examine the merits of joining an existing network or creating a new one.

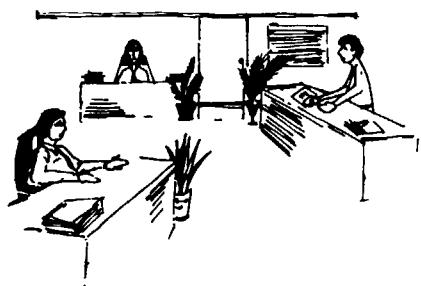
For example, a decision to join POPIN or not may depend on a number of considerations. First of all, the subject coverage of POPIN collection is more general, diverse and family planning oriented. There is less emphasis on population education materials and information. POPIN members are mostly producers and users of family planning and fertility-oriented information.

Secondly, the target clientele of POPIN is already enormous and varied (e.g. medical and paramedical personnel, researchers, demographers, extension workers, motivators, barefoot doctors). As it is, the target clientele of population education, although more homogeneous (e.g. teachers, curriculum developers, trainers, supervisors, headmasters, principals) runs up to hundreds of millions all over Asia and the Pacific. Therefore, there may be some doubt whether the information needs of professionals from the education sector can be sufficiently met by the larger POPIN network. Membership in a network that is still in a developmental stage may present itself as an attractive option because the pace and direction of the network's development can still be influenced to suit the needs of all incoming members.

One of the options that can be explored by librarians and information personnel in population education, to enjoy the benefits that either network offers, is to create a sub-network on population education while being a part of the larger POPIN.

Step 3.

If the decision is to create a new network, establish contact with organizations involved in population education information and assess them for their resources, strengths and weaknesses, and potential contributions.



Personnel



Size of Collection



Machines



Budget

Potential members are identified based on preliminary criteria, including the following:

a) The desirable total number of network members.

Usually national population education programmes are located within the Ministry of Education. As this office is located in the capital, population education programme branches are established throughout the country to reach target clientele at the local level.

In the case of the Philippines, there are now Population Education Units in the 13 regional offices of the Ministry of Education, Culture and Sports. India has 28 population education cells in the states and union territories. Until 1985, China has 26 focal points in population education programmes in middle schools and pedagogical institutes. Bangladesh has population education cells at the district level.

Except for China, branches of population education programmes tend to be located within the state provincial offices of the Ministry of Education or other governmental offices.

In addition to these branches, secondary schools, colleges and universities reach target clienteles (e.g. trainers, field workers, etc.) by offering population education courses and by running adequate population education libraries. The inclusion in the network of branches of national population education programmes and/or middle schools, colleges, universities and teacher training institutes offering population education depends to a great extent on their respective resources.

b) The geographical location of members.

Is membership limited to institutions located in the capital and nearby areas? Will it include institutions located in various states/regions/districts? The answer depends on the stage of development of the national population education programme.

For example, the population education programmes in some countries (e.g. Thailand, Maldives, Viet Nam) do not have local well-established branches and population activities are concentrated in the capital and nearby areas. In this case, a core network comprising participating agencies can be established initially in the capital.

In the case of Thailand, such a network will include the following: the Departments of Curriculum and Instruction Development, General Education, Vocational Education, and Non-Formal Education, and the Office of the National Primary Education Commission.

In Viet Nam, a similar network will be made up of the National Institute of Educational Science, the Committee of National Educational Reform, the Departments of Complementary Education and Educational Pre-School Age Reform, and

the Hanoi Teacher Training College. It should be noted that most of these network members are departments within the Ministry of Education located in the capital. These departments implement population education programmes which are integrated into their respective areas/fields of work, such as out-of-school training, higher education, teacher training, vocational education and primary/secondary/kindergarten education.

On the other hand, the population education programmes in the Philippines, India, China, Bangladesh and Pakistan have nationwide branches. These branches are mostly located in provincial/state education offices.

c) Inventory of existing resources, similarities, differences and strengths/weaknesses.

Before starting to share, potential members should first know what there is to share. Inventories of existing resources are indispensable if efficient resource sharing activities are to be achieved. Resources may refer to time, manpower, funds, information and equipment. For resource sharing to be most effective, potential members should at least have adequate population education information resource bases or collections and should be actively involved in the generation and acquisition of information. Potential members should have engaged at least one person to undertake information collection and the provision of information services on a full time basis. They must also have some special capabilities (e.g. some libraries may have photocopying or duplicating services, bibliographical apparatuses, unique holdings, training facilities). At the simplest level of resource sharing, the maximum requirement is for libraries to have union lists or accessions lists or bibliography series.

It is also useful to assess the range and depth of similarities/differences and strengths/weaknesses of potential members. Such an assessment may reveal helpful findings. For example, while the majority of libraries may emphasise print collection, one or two may be specialists in audio-visual materials on population education. While some libraries are manned by a single staff only, others may be more generously staffed and can therefore be requested to undertake some networking activities on behalf of the other members.

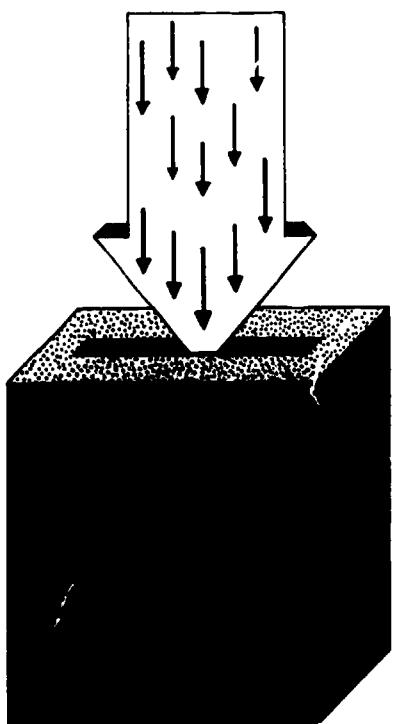
A survey conducted by the ESCAP Population Information Centre from 1983-1984, covered various national population information centres, specifically determining their personnel, facilities and equipment, levels of automation, resource bases, information services, products, clientele and networking. Survey results were used in the development of a regional population information network.²⁷

If it turns out that 70 per cent of all potential members do not have enough information/collection to share and that they are understaffed, ill equipped and inadequately funded, it is advisable to drop the idea of networking for the time being. As a general

rule, at least 50 per cent of the total number of potential members should be in a good position, in terms of financial, manpower and information resources. Knowing the capability and resources of each potential member will serve as a good basis for extracting the level or extent of contribution each is capable of making and for formulating co-operative ventures.

Step 4.

Call a general meeting of all potential members, and formulate the network objectives and policies.



Once a final decision is reached on the creation of a network, the national population education programme should convene a meeting of all potential members. Libraries should not only be represented by librarians but by the heads of their respective parent organisations to ensure continued support.

Detailed network planning starts with a clear statement of objectives. Essentially objectives comprise a declaration of what the network is, its purpose and mission, the programmes of action by which the network's mission be carried out, and the standards against which performance will be measured. The objectives serve as a framework to guide network planning and development.

The basic task is to translate the needs identified into general objectives and specific sub-objectives, distinguishing between needs that can be accomplished within the network and those that require network interaction with outside agencies, including other networks, funding agencies. The first thing to do is to allow the members to state as many objectives and to prioritize them accordingly. The formulation of objectives should be based on members' needs and requirements.

Below is a set of model objectives which can be studied, adopted, modified, or used as a kind of springboard in formulating the objectives of a newly created network.

GENERAL OBJECTIVES:

1. Promote the flow, exchange and use of relevant population education information in the country so as to backstop more effective planning and implementation of the population education programme.
2. Further develop and strengthen the infrastructure of network members at the local level so as to facilitate information exchange and use within the country.

IMMEDIATE OBJECTIVES:

1. Develop guidelines and standards for the operation of the population education information network.
2. Build and expand the collection of materials of local branches or network members all over the country.
3. Improve access by the staff of network members at the national and local levels to population information management and information processing techniques.

4. Undertake innovative information services through appropriately consolidated and repackaged information.
5. Conduct training programmes in information management and processing techniques for the staff of network members at the national and local levels.
6. Evaluate the role and performance of population education information network members and their relationships with the national co-ordinating unit or focal point of the network.

MORE SPECIFIC MODEL OBJECTIVES:

1. To promote and encourage the documentation of population education activities and experiences in the areas of training, curriculum and instructional materials development, research and evaluation and teaching methodologies.
2. To systematise the collection, processing, storage and retrieval of population education information.
3. To identify the profile and information needs of users.
4. To identify the sources/producers of population education information and to develop a national directory.
5. To undertake various repackaging activities, such as newsletter, executive memoranda, literature reviews, case studies, manuals, curriculum and training materials, so as to ensure proper utilisation of information.
6. To establish dissemination strategies to ensure the distribution of the right information to the right person at the right time.
7. To periodically upgrade the skills and competence of personnel of network members in various information handling activities.
8. To evaluate the flow and use of information so that policies and practices in population education can be improved.

Policies should also be discussed. Policies can serve as guiding principles in the implementation of the information network programme at all levels and in all aspects. Policy statements should be formulated with regard to the following:

1. Governmental support.

In both a policy and legalistic sense, an information network may require an official legal framework. Whenever possible, the mandate and responsibilities of the national population education information network should be explicitly stated by the highest authority – in many cases, the Minister of Education. The policies and priorities of parent bodies should give adequate resources to information units and allow them sufficient flexibility in the performance of their duties.

2. The nature of policy required by the network co-ordinating body.

This refers to a policy statement showing network members' support of the activities of the co-ordinating body or focal point, and delineating authority relationships between co-ordinating bodies.

3. The level of centralization and decentralization and the determination of network boundaries among network members.

As the building of information infrastructure and collection is still in its initial stages, it will be helpful if the network has a more centralised operation for the time being. A national focal point or clearing house can assist network members in the implementation of their duties and activities. However, this does not rule out decentralized activities by network members. A network is not a rigid alliance. Instead, it is a system of linkages for information exchange and sharing, and members can undertake other activities in pursuit of their respective objectives.

4. Common goal

Network members are bound by the common goal of improving the national population education programme through the sharing of information and resources.

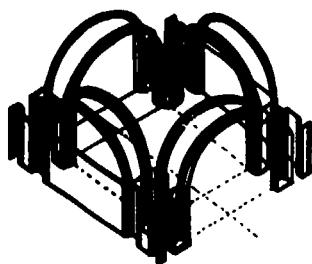
5. Costs/funding sources.

This requires a policy statement that will describe types of cost-sharing arrangements among member institutions. The raising of resources should be encouraged not only through sharing/co-operation among members but also by presenting specific and general funding proposals to agencies, such as UNFPA.

In addition to these major areas, policy statements would also have to be made on the following topics: membership; services related to the generation, processing and accessing of information; co-operative arrangements; institutional framework and structure; information technology facilities; the development of common standards and tools; and training.

Step 5.

Develop an organisational structure and identify nodes and network relationships.



Complementary to the detailed description of various forms of networks in Chapter Three, this section will describe some organizational structures as they apply to the field of population education. Three questions provide a good basis for decision-making with regard to structures. These are: How-much centralization is appropriate? Who will co-ordinate the work? Will it be necessary to have sub-central nodes in the provinces or in large cities, or at a sub-provincial level?

DIRECTED NETWORK

The first one is the directed network with a clearing house node or focal point,²⁸ which is a member institution. The focal point is responsible for the following:

1. Maintaining a management secretariat to organise and operate the network;
2. Collecting, processing, organising and supervising the storage and retrieval of information coming from member institutions;
3. Providing a communications link between itself and all members (e.g. through a regular newsletter);
4. Advising members concerning available information in its own collection as well as in the members' collections or libraries, and informing them of major activities, issues and problems which the network should address; and
5. Taking the lead in developing programmes for the benefit of members.

Member institutions are expected to regularly contribute information to the focal point and furnish it with their regular publications. They are also expected to course their information needs from member institutions through the focal point. Being contributing members, regular members are likewise expected to respond to the needs of other members when requested by the focal point.

NON-DIRECTED NETWORK

The non-directed set up is a freely interacting bilateral/multilateral arrangement which does not need a focal point. What is required is a directory of member institutions and information on their respective information resources. There is no need for a central body to maintain a separate collection of information as members may contact one another directly. Other network activities must depend on individual initiatives.

COMBINATION

A third possible option is a combination of the two previous options. This option implies the designation of a focal point charged with responsibilities similar to those stated in the first option. While the responsibilities of regular members in this option are largely similar to those indicated in the first option, free contact/interaction, as in the second option, is allowed for needs that may be satisfied without assistance from the focal point. The main difference is that members may have the choice to either approach the focal point or to contact other members directly.

As has been mentioned, the information structure in the field of population education has not reached a sophisticated level in which a more decentralised type of networking can function effectively. In this case, the most functional arrangement is the third networking option, which provides a clearing house or focal point and allows free interaction on a bilateral/multilateral basis among members.

The library or information centre in the national population education programme located in the Ministry of Education often serves in the case of option No. 1. If the national population education programme does not have a library or is understaffed, the main library of the Ministry of Education or of a teacher training college or university is designated as clearing house.

Network members will comprise some or all of the following:

1. Population education cells located in the local branches of the Ministry of Education, or in the research councils of institutes of education at the regional/state/provincial/district levels as the case maybe;
2. Population education programmes located in the other departments of education such as those in non-formal education, teacher training, kindergarten or vocational training;
3. Pedagogical or teacher training institutes offering population education programmes at the graduate and undergraduate levels;
4. Universities offering population education courses;
5. Secondary schools teaching population education;
6. Population programmes located in the commissions on population or family planning boards; and
7. Other ministries offering population education, such as the Ministries of Social Welfare, Agriculture, Health, Labour.

The functions of the national focal point or clearing house may include the following:²⁹

1. Promotion of the concept of a network in population education information throughout the country, and consequent co-ordination, stimulation and monitoring of the national network;
2. Overall management of the network;
3. Provision of programming, planning and technical support to member institutions;
4. Provision of services as an information clearing house;
5. Mobilization of financial resources for different network projects;
6. Promotion of communications among network nodes;
7. Provision of nationwide referral service for enquiries coming from other countries in the region and response to queries/requests by the UNESCO Population Education Clearing House; and
8. Preparation and publication of newsletters and other information bulletins, in co-operation with member institutions.

Member institutions should have the willingness and capability to mobilize resources in order to:

1. Undertake networking activities or tasks assigned by the national focal point;
2. Accommodate or arrange on-the-job training for personnel;
3. Exchange information materials, data bases and software packages;
4. Share resources, facilities, experiences and expertise with other network members; and
5. Undertake projects and studies in collaboration with the national focal point and other members.

The network will be guided by an advisory group or technical committee whose members include heads of the member institutions. The advisory group will provide the overall policy guidance, as well as prioritise the activities of the network.

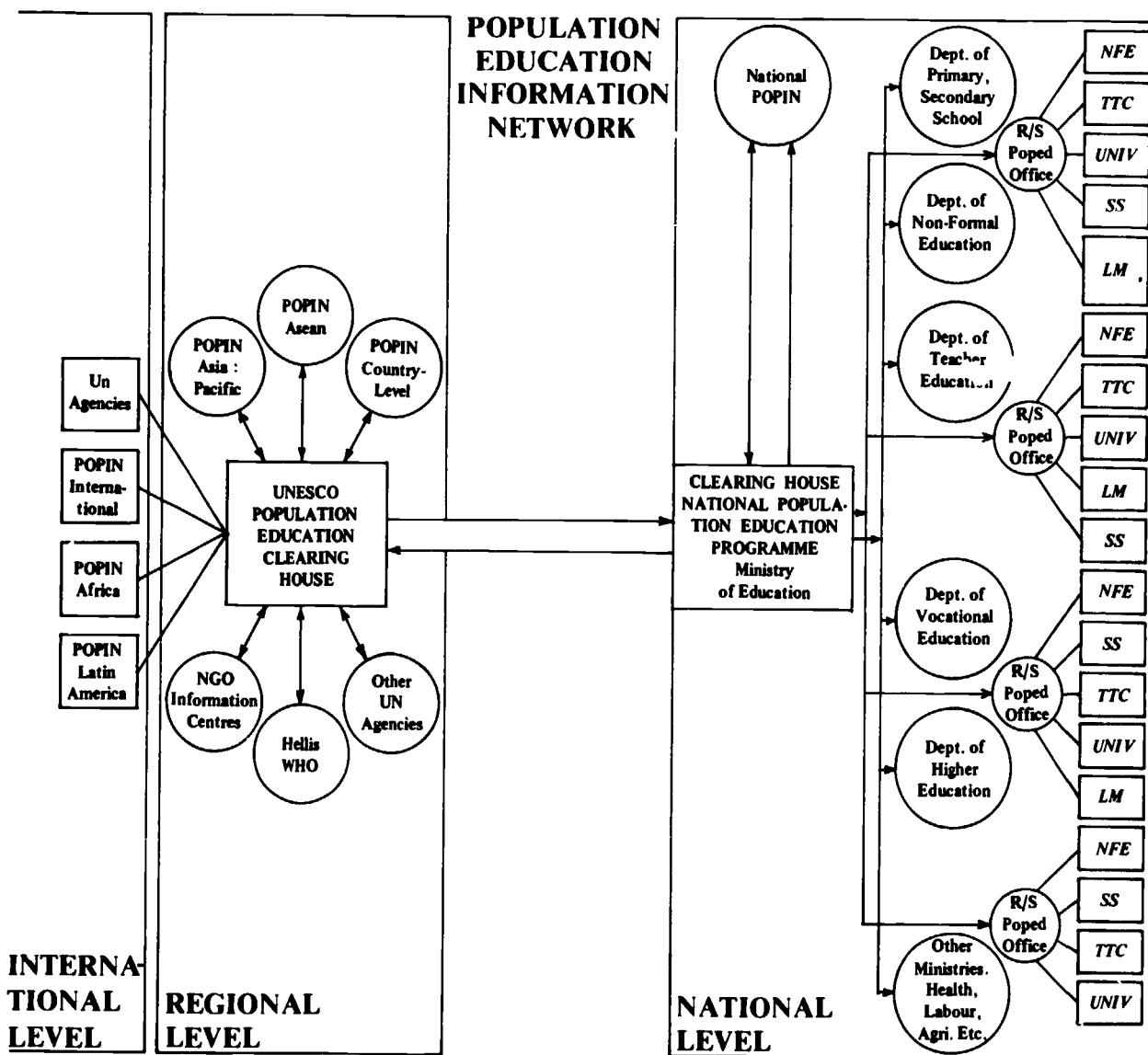
There will be three levels of relationships: national, regional and international.

At the national level, the network will be co-ordinated by a focal point charged with the responsibility for establishing linkages with other population education institutions and related agencies.

At the regional level, the national focal points will be the main nodes interacting with one another and with the UNESCO Population Education Clearing House based in Bangkok. They will facilitate access to and sharing of population education information. The UNESCO Population Education Clearing House will be responsible for building and strengthening the collections and infrastructures of the national points. It will also serve as the main source of information within the region, and as the major link which will refer specific questions to appropriate institutions. It will also provide training to the country staff on various aspects of information processing and handling.

At the international level, the UNESCO Population Education Clearing House will serve as the main link to ensure access to information from other regions and other information networks, such as POPIN International and HELLIS (WHO Information Network, etc.)

PROTOTYPE MODEL OF A POPULATION EDUCATION INFORMATION NETWORK AT THE INTERNATIONAL/REGIONAL/NATIONAL LEVELS



LEGEND:

R/S

NFE

TTC

UNIV

LM

SS

REGIONAL/STATE

NON-FORMAL EDUCATION CENTRE

TEACHER TRAINING COLLEGE

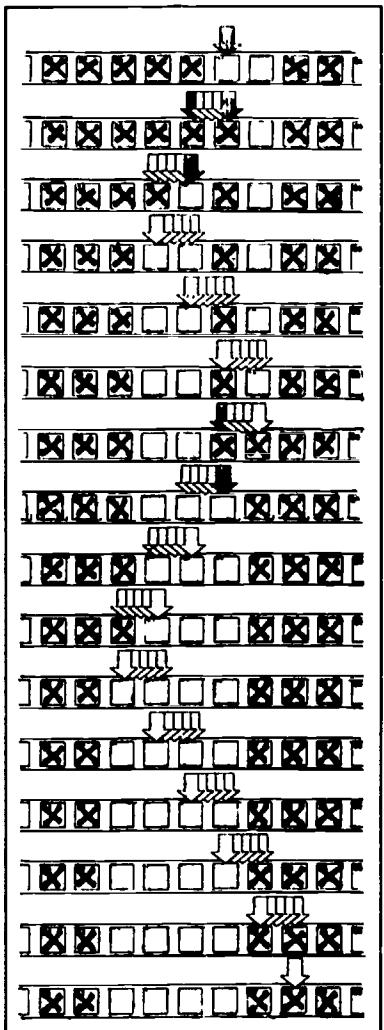
UNIVERSITY

LOCAL MINISTRIES

SECONDARY SCHOOLS

Step 6.

Develop a work plan and line up of activities.



Programme activities are developed based on the objectives and sub-objectives identified in Step 4. Very likely some of these activities have long been in the minds of the majority of the network members. Below is a shopping list of network activities which provides a good starting point for this exercise. Each of these will be described in further detail in Chapter 6.

- interlibrary loan
- reference service
- union catalogues
- delivery of materials
- joint acquisition of materials
- bibliographic access
- continuing education
- reproduction of materials
- circulation
- publications
- cataloguing
- processing
- storage
- literature searching
- collections development
- abstracting/indexing
- consulting
- computerization
- evaluation and monitoring
- management
- in-service personnel training

Clearly these activities cannot be taken up all at once. Priority activities would have to be determined based on their relevance to local situations, the urgency of users' needs, operating costs, the availability of and access to resources, and the reasons and objectives of members for joining the network.

Different types and sizes of libraries engage in co-operative activities for what may be dissimilar reasons and objectives. Small libraries maybe more anxious to take full advantage of shared bibliographic information for purposes of interlibrary borrowing. Larger libraries, on the other hand, while not always eager to open their holdings to an escalating interlibrary loan demand, may view the streamlining of the technical processing of various information activities as a major network attraction.

As population education information/documentation services are still in their infancy, networking activities that should be given priority are those that will pave the way for the development of infrastructure and for the advancement of network programmes at a later stage. These activities include the following:

1. Efforts should be undertaken to promote an appreciation of the value of information in implementing various aspects of the population education programme and in reinforcing the commitment and support of policymakers to the network.

2. As many of the network members are in the process of building their collections, another initial activity is to develop the core collection of population education materials while strengthening or expanding the existing collections of network members.

3. There should be an active exchange of publications and documents among network members to help build their respective collections.

4. To determine the focus and thrust of the members' respective collection, publication and dissemination programmes, a survey should be conducted concerning the profile and information requirements of users. Sources or producers of information should be identified in the same survey. This activity should result in an inventory or directory of institutions and information sources, as well as agencies that produce and use population education information. A mailing list of users can then be developed.

The next priorities will be the adoption and development of norms and standards for information handling, such as the preparation of manuals on the classification of population education information. To complement this, training programmes and manuals are developed to upgrade the knowledge and skills of the staff of network members, in basic library work, in the computerisation of library activities, and information processing, repackaging and dissemination, bearing in mind the need to tailor strategies to specific users.

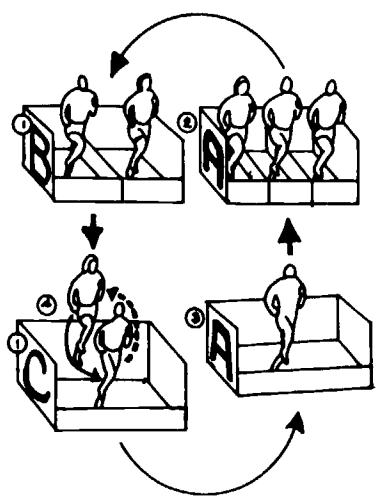
5. As member institutions are not yet fully equipped, interlibrary loan, reference and referral services, and the joint acquisition of materials should be arranged as soon as conditions permit.

6. To inform all network members and users of the availability of materials in the respective collections of network members, simple accessions lists or bibliographies should be prepared on a regular basis and disseminated to all members and their respective users.

Other network activities which are considered important (albeit dependent on existing manpower and financial resources) are the processing and repackaging of information into such forms as newsletters, packages of materials, handbooks and other reference materials that can be readily used by teachers, trainers, curriculum developers and related professionals.

Step 7.

Assign personnel to specific tasks.



The network co-ordinator is responsible for assigning personnel to specific tasks. Because network activities involve a communication process, a pitfall to be avoided is the possibility of bottlenecks if much of the work is concentrated on a few members. In addition, the network co-ordinator must ensure that members are not burdened with complicated procedures and costs that offset the benefits they may derive from the network's operations.

The personal involvement of members is central to networking. To maximise such involvement, volunteer members should be assigned tasks that suit their interests/preferences, their availability as well as their special skills/training. To determine what should be assigned to whom, a matrix or table showing the resources and skills of member institutions, with regard to various networking activities, should be developed.

If a network feels that a survey of the profile and information requirements is an important baseline activity, the national focal point or co-ordinating body undertakes the development of the necessary questionnaire and assigns member institutions to undertake data-gathering from their respective clientele. The completed questionnaires are returned to the co-ordinating unit for tabulation, analysis and publication.

Another joint activity requiring co-operation among all members is the compilation of a union catalogue. In this activity, the focal point first establishes the format for gathering and organizing the information to be placed in the union catalogue and then assigns members to compile information covering their respective collections. These are submitted to the co-ordinating unit for polishing and consequent publication as a union catalogue.

Some activities, however, do not involve all member institutions. For example, the preparation of special topical bibliographies can be assigned to members with major collections in particular subject areas. A member with microfilming facilities can be assigned to produce microfilms for other members and their users.

The matrix (on pages 60 and 61) shows how network activities are delegated and assigned to network members and the co-ordinating unit. The "x" sign refers to all members, including the co-ordinating unit, which have similar or equal levels of responsibilities. The "√" sign refers to members which co-operate with or support the focal point or co-ordinating unit in gathering information.

The assignment of tasks according to geographical factors is illustrated in another table.

SUGGESTED NETWORK ACTIVITIES AND DELEGATION OF RESPONSIBILITIES

Operations or Services	Central Library/ Co-ordinating Unit	Reg. *	Reg. 1	Reg. 2	Reg. 3	Reg. 4	Reg. 5	Reg. 6
I. Acquisition of Materials								
1. Joint purchasing of materials	X	X	X	X	X	X	X	X
2. Assigned specialization in acquisition	X	X	X	X	X	X	X	X
3. Co-ordinated subscription-purchase	X	X	X	X	X	X	X	X
4. Exchange of duplicate holdings	X	X	X	X	X	X	X	X
II. Library Technical Services								
5. Co-operative cataloguing or catalogue card support and production	X	✓	✓	✓	✓	✓	✓	✓
6. Abstracting and indexing service	X							
7. Interlibrary loan service	X							
8. Reciprocal borrowing privileges	X	X	X	X	X	X	X	X
9. Reference service	X	X	X	X	X	X	X	X
III. Publications Programme, Repackaging Information								
10. Union catalogue or history of periodicals	X	✓	✓	✓	✓	✓	✓	✓
11. Mutual notification of purchases through lists of new arrivals or acquisition lists	X	X	X	X	X	X	X	X
12. Bibliography development	X	X	X	X	X	X	X	X
13. Newsletter	X	✓	✓	✓	✓	✓	✓	✓
14. Joint directories of personnel, projects, consultants, resource persons, etc.	X	✓	✓	✓	✓	✓	✓	✓
15. Directory of research service	X	✓	✓	✓	✓	✓	✓	✓
IV. Duplication Programme								
16. Photocopying service	X							
17. Microfilming	X							
V. Co-ordination Services								
18. Clearing-house function	X							
19. Central resource for storage centre	X							
20. Referral Centre	X							
VI. Delivery Service/Mailing Service								
VII. Research, Training and Other Special Services								
21. User interest surveys	X	X	X	X	X	X	X	X
22. Joint research projects (like evaluation of materials and information flow studies, etc.)	X	X	X	X	X	X	X	X
23. In-service personnel training	X							
24. Workshop/Meeting	X							
25. Translation	X	X	X	X	X	X	X	X

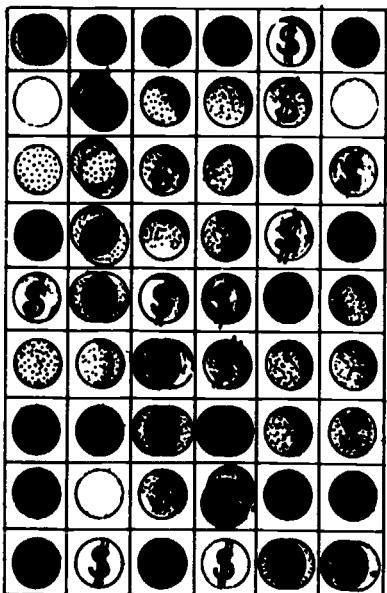
* Region

LEVELS AT WHICH NETWORK ACTIVITIES CAN BE UNDERTAKEN

System or Network Activity	Level				Objective
	National	Regional	Consortium	Individual Centre	
Production of National Bibliography (also machine readable)	X				To prepare a national bibliography including books, pamphlets, micro-forms, films, phonograph records, government publications. Local production of catalogue cards, subject bibliographies as locally requested. Local SDI service possible.
Union Catalogues	X				To show location of publications and facilitate inter-library loans.
Inter-agency Loans	X	X			To channel published items to individual users on request.
Standards Development	X				To bring about compatibility. Unified internal procedures lend themselves to standard automation systems. Standard terminology, record format, user interface, systems, etc.
Referral Centres	X	X			To refer any user to the source that will meet his needs.
Reference and Information Services				X	To refer a requester to printed sources of information, using directories, year books, encyclopedias, dictionaries, reference books, but also special subject bibliographies and catalogues.
Selective Dissemination of Information	X	X	X	X	To supply patrons automatically, on the basis of their profiles, with relevant information from one or more data bases at regular intervals.
Retrospective Searching	X	X	X	X	To search an entire data base, or a major portion of it, against a one-only query.

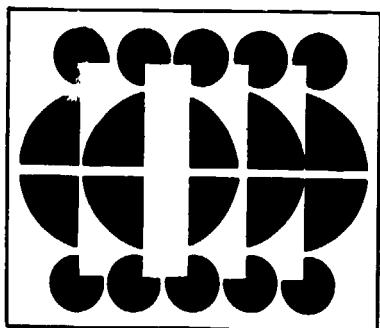
Step 8.

Determine the amount of required financial support and draw-up plans for funding.



Step 9.

Implement activities and undertake regular meetings and monitoring of activities.



Quite possibly, networks can be established and operated without a definite operating budget, if members carry out the network activities themselves. Top priority activities which would require considerable funding support from members should be carefully studied, taking into account the availability of funds and the possibility of tapping external funding sources.

There is fear, for example, that heavy interlibrary loan traffic may present extra costs which low-budgeted libraries can ill afford. Another fear is the potential imbalance between interlibrary transactions and local circulation transactions. As a result, budget originally allocated for collection development for local demands is eaten up by expenses in interlibrary transactions.

Some activities undertaken on a regular basis may have to be supported by the collection of membership dues/fees. These activities include newsletter production, the holding of meetings and others.

Large-scale projects that entail substantial expense would have to have some support, such as grants from government agencies, corporate foundations and other entities, as well as substantial financial help from network members themselves.

As a rule, network activities benefit from pre-testing on a pilot basis before they are made fully operational. Pre-testing would, for example, provide a good basis for the revision of a newsletter's content, format or frequency of publication, based on comments/reactions received from members during the trial period.

Among the major benefits of pre-testing are the following:

- a) during the trial period, the difficulties and deficiencies of an activity are uncovered;
- b) staff and network members are provided an opportunity to learn how to conduct the activity in question under variable conditions;
- c) those who benefit from the activity or participate in it are given sufficient time to familiarise themselves with the activity itself;
- d) an activity which fails can be dropped or modified to become more effective;
- e) the trial period presents opportunities to change a members' attitude from indifference to the network itself or the specific activity in question, to one of receptiveness;
- f) this period is also a good time to correct misconceptions about networking; and
- g) most of all, it is during the trial period that parent organisations of members can be introduced to some observable benefits of networking, particularly those derived from network services which are rendered free of charge.

An effective way of monitoring activities is by holding regular meetings among network members requesting each to report on accomplishments/difficulties and encouraging them to raise issues that are better discussed as a group.

The network co-ordinator is responsible for keeping the members, funding sources and concerned professionals, informed of the progress of the activity. If a network member has sole charge over the activity, he is responsible for submitting periodic updates of the activity's progress to the co-ordinator who in turn makes his reports.

Progress reports may take different forms; such as newsletters to members, as period formal reports, and as oral reports delivered during workshops, regular meetings and committee work.

Newsletters as a form of progress report may cover a wider scope and include announcements of the activities of other networks, new publications, forthcoming conferences and other pertinent items.

Regular progress reports help maintain the level of members' interest in networking. Information concerning the operating details of a particular activity may inspire members to help ensure that such activity continues to run smoothly. Information concerning other members' utilisation of the network's services may encourage them to maximise their own use of the network and improve their relationship with it, if necessary.

Step 10.

Evaluate network accomplishments and modify network design and policies, as necessary.

Eventually, the time arrives to juxtapose original objectives with current network activities and accomplishments. Ask the following questions. Has progress been made? Are users' needs being met? Are resources being shared? Are barrier problems being solved? Has membership increased?

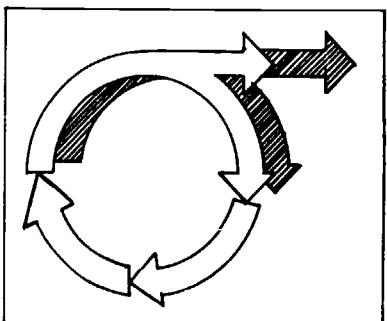
Not all expected benefits can be realised. A network requires fresh ideas to re-invigorate it and sustain its activities.

Network activities should be provided with built-in mechanisms to test their effectiveness. Evaluation procedures may include the gathering of specific data on the utilisation of an activity or service and on the increase in the number of users.

Just as defective/deficient activities can be corrected during the trial period, so can ineffective evaluation procedures be amended.

To facilitate the recording of evaluation findings, an activity can be provided with data recording/measurement mechanisms. For example, certain questions on delivery service can be resolved by collecting shipping labels issued within a specified period of time.

Basic policies may have to be changed, based on the evaluation of an activity. A free access policy, for example, in a recipro-



cal borrowing programme, may have to be reviewed should certain libraries reporting unusually heavy use of their materials demand reimbursements for services rendered. Also, basic policies on hours of service may have to strictly defined and implemented if the greatest volume of calls to a union catalogue location are received after normal working hours.

As the trial period approaches its end, the mechanisms for evaluating the activity are tested and modified, if required. Where possible, quantitative mechanisms are also adopted as part of the evaluation procedure.

Chapter Six

**NETWORK FUNCTIONS/
ACTIVITIES**

CHAPTER SIX



NETWORK FUNCTIONS³⁰

1) Co-operative acquisition³¹

The broad term "co-operative acquisition" refers to joint action in acquisition and utilisation of information resources. Beginning with the preliminary stages of selection, organisations come together in a network for actual purchase of materials, resulting in joint ownership and/or use.

Perhaps the most important aspect of co-operative acquisitions, in providing long-range and tangible results, is the adoption of different subject specializations for the purchase and preservation of materials within a group of libraries and information centres. These resources are then made available for mutual use.

Co-operative acquisition of population education materials is now being undertaken in China, Nepal, Sri Lanka, Viet Nam and the Philippines. Funds for this activity are set aside in the budget of UNFPA-funded population education programmes in the Ministry of Education. The funds are used for the purchase of population education publications and audio-visual materials to build the collections of the central office and the branches of the programme in various parts of the country.

Acquisition of materials based on subject specializations also occurs to some extent. For example, in Nepal books on non-formal education are stored in the library of the Directorate of Adult Education which is mainly in charge of implementing the out-of-school population education programme, while materials for in-school population education are placed in the libraries of the Curriculum Development Centre in the Ministry of Education. Documents that deal with higher education are kept in the Library of the Tribhuvan University, which offers undergraduate and graduate courses in population education.

A similar pattern of specializations in co-operative acquisition is seen in Viet Nam where population education is incorporated in teacher training, general education, education research and in the non-formal and kindergarten sectors and other sectors.

As the acquisitions, regardless of their physical location, are owned by the national population education programme, all members enjoy unrestricted and ready access to them.

Except for the Philippines, the countries mentioned above are being assisted by the UNESCO Population Education Clearing House in the purchase of materials. The Clearing House has the personnel to handle acquisition procedures and is knowledgeable of the current range and sources of population education materials produced in Asia and the Pacific and elsewhere. It also has facilities for foreign exchange transactions.

A number of reasons have motivated some countries, such as China, Nepal, Viet Nam, Sri Lanka and Indonesia, to seek assist-

ance from the UNESCO Population Education Clearing House in the identification of population education titles to be purchased and in their actual procurement. These include:

- a) A meagre knowledge of network members of titles and sources of population education information/literature. This is aggravated by the lack of book catalogues and directories of producer organizations within the country. Thus, it is difficult to monitor documentations emanating from them and to ascertain what has been published, what is available and where it can be located. A particularly problematical task is tracking down, non-conventional literature which are often issued in mimeographed form or even in typescript and are circulated in restricted numbers. These materials include curriculum materials developed by teachers, project reports, background papers, survey reports and training materials.
- b) Foreign exchange restrictions or other budgetary limitations which curtail the purchase of materials.
- c) Lack of personnel.
- d) Postal procedures which delay the delivery and receipt of ordered materials, and administrative rules and regulations which obstruct the processing of orders.³²

For example, foreign census publications have always been difficult to acquire for three main reasons: delayed receipt of advice/announcement concerning the most recent publications, the high cost of publications of this nature, and the limited access given to this type of publication. Co-operative acquisition is helpful in acquiring these and other publications which are similarly difficult to obtain.

2) Assignment of specialization in material acquisition

Although population education is already a highly specialized topic, this activity is still possible if the collection of the different sectors within a population education programme is distinctly delineated.

As mentioned earlier, population education is implemented in various departments or divisions of the Ministry of Education. To save on costs, these departments can be requested to focus their respective collections on materials that are distinctly pertinent to their subject specializations. This prevents duplication in the acquisition of materials.

Libraries exchange their lists of holdings for each reference, referral or borrowing, making it easier for librarians to concentrate on their respective disciplines and to undertake indepth specialization in their subject matter. This arrangement requires strict and close liaison with other libraries. It also means that a special library should have in its collection more than one copy each of its special acquisitions.

3) Co-ordinated subscription

This is more applicable when network members are geographically close to one another. Nevertheless, this activity can also be done in spite of geographical distances if, the national focal point, in the Ministry of Education, subscribes to population journals and periodicals and circulates them to other member libraries in other departments within the Ministry and to other population education-related organizations located in the capital.

4) Exchange of duplicate holdings

Another useful co-operative method in building library resources is the exchange of duplicates directly between libraries, or indirectly through a central library. During the planning stage, an agreement must be reached among the network members to send one another a copy of all the publications produced by their respective parent organisations, as well as a copy of all their duplicate holdings. Network members may forward all their duplicates to the national focal point or clearing house, which announces the availability of the duplicates in its collection, or sends them directly to individual members.

Members who do not have enough copies nor sufficient mailing funds may send the necessary bibliographic information to the national focal point, which will in turn announce the titles and their locations through a published list or bibliography. Those who are interested are requested to directly contact the source of the required information.

At the regional level, the Population Education Clearing House of UNESCO is undertaking a kind of redistribution programme by requesting from national population education programmes from 30 to 50 copies of national publications, announcing their availability, and redistributing them to other Asian countries.

Beyond merely announcing available documents in the members' libraries, the national focal point or clearing house may also store the duplicates, handle requests, and consequently redistribute them.

TECHNICAL SERVICES

1) Co-operative cataloguing

For all types and sizes of libraries or collections, manual cataloguing is time-consuming as it involves much checking, typing, filing and other routine clerical work. On the other hand, substantial savings in effort and time are made if the national focal point, which undertakes the ordering of books and materials, also processes and catalogues the books and mail them to the members accompanied by catalogue cards for filing.

If book ordering is not centralized, co-operative cataloguing is done by requesting network members to enclose the call number of catalogue number of materials developed in their respective regions when they distribute such materials. It is, of course, assumed here that a standard method of classification and cataloguing has been established among the network members.

These schemes make effective use of professional staff time, expensive mechanical equipment and bibliographical tools used in cataloguing. Standards of processing and cataloguing are further enhanced when a union catalogue of the holdings of member libraries is prepared as a by-product of the operation. The crucial point here is to secure sufficient speed of operation, thus avoiding delays in the members' receipt of processed books, and in reconciling differing procedures among members to arrive at one uniform method.

Co-operative cataloguing is undertaken up to a certain extent by the Population Education Clearing House of UNESCO by seeing to it that standard catalogue cards prepared by the Clearing House accompany books distributed to mobile libraries in Bangladesh and Sri Lanka. The compatibility of the UNESCO classification system with those of individual countries is verified before actual cataloguing is initiated.

2) Abstracting service

This service is automatically conducted during the process of cataloguing/indexing materials, and is often undertaken by a clearing house which collects materials from network members and abstracts them for sharing and redistribution to the members. At the regional level, the UNESCO Population Education Clearing House publishes a series of abstract-bibliographies of documents or materials, focussing on various subject areas. These bibliographies contain informative abstracts of each of the entries. The abstracts can be extracted and used by the national population education programmes.

Network members which are adequately staffed can also undertake abstracting services without requiring the assistance of a clearing house. To guide members in writing standard abstracts, useful guidelines should be developed for their use.

3) Interlibrary loan

Interlibrary loan is one of the most frequently and enthusiastically cited network benefits as it provides mechanisms for efficient document delivery at a much lower cost than actually purchasing the said document. This activity is especially useful in the case of rare and important books or books in limited circulation. Mechanisms for the safe/speedy delivery of documents to and from network members are vital and may involve the use of drop-off points and pick-up points.

Interlibrary lending between far-flung regional offices or branches should be done for a longer duration and, as required, should support the idea of "a mobile book". For instance, a rare book is allowed to move from one state/region/district to another, or from the central library to various states/regions/districts. Rare books can be circulated regionally on a monthly basis. Advance notices of the arrival/availability of these books at certain libraries within a state/region/district should be made by the regional library. Such notices would alert local users and thereby maximise the actual use of said books. An important reminder is to ensure that the library from where these books originate has extra copies of said books for its local users.

Clearly, interlibrary loan is not only done in response to users' requests for certain books but also to generate or solicit requests for books while they are in a particular network member library.

Interlibrary loan is facilitated if network members have worked out some mechanism by which to identify the content of their respective collections.

4) Reciprocal borrowing privileges

This agreement allows users of a network member library to use the facilities of other network members. This privilege can also be extended to other libraries or information centres dealing with population in general, family planning and demography.

Population information centres within a geographic region may join together to establish and maintain a single union catalogue which attempts to rationalise interlibrary lending and resources, and to provide information to users who may wish to use a library in another part of the state/region/district.

5) Reference and/or referral service

Reference search can be a costly service which takes a significant amount of preparation, staff time and machine time. To ensure effective reference and/or referral service, network members should be advised at all times of all other members' holdings and activities. Therefore each member should maintain and update directories, acquisitions lists, reference lists, useful addresses and other searching tools.

Referrals can be done by the members themselves or they can be coursed through a central clearing house. Questions/requests received by network members are referred to the clearing house or referral centre which should have complete information on the network members' activities and holdings.

PUBLICATION PROGRAMME/ INFORMATION REPACKAGING

1) Union catalogue/list of periodicals

Listing in a union catalogue is an essential network feature, requiring each member to take responsibility for forwarding cataloguing information to national focal point on new materials received. In essence network members offer information about their respective holdings or are requested by the focal point to identify their holdings, their location and availability. This activity is particularly important among "extended libraries" engaged in many interlibrary loan activities.

Union cataloguing or the listing of periodicals is conducted on a national basis and most often the central compiler is the national focal point. This activity is relatively easy to undertake in the field of population education because of the comparatively smaller volume of materials that have been produced on the subject to date. This activity is also fostered by the members' freedom from rules which may deter them from sharing their holdings.

As an essential requirement, members should use a standard cataloguing or classification system. They should also promptly process materials as they are received. Photocopies of the catalogue cards may be submitted to the national focal point or clearing house.

The format and categories used should be drawn up in a way that lends their easy entry into computerised union catalogues.

Examples of union catalogues include audio-visual lists which are particularly useful as AV materials are difficult to find, and lists of maps, such as maps showing population densities.

2) Lists of new arrivals on accessions/ acquisitions list

This is prepared to alert the users to publications recently received in the library. It is the responsibility of all network members to prepare lists of new arrivals or accessions, periodically or depending on the frequency of book arrivals. Such lists are distributed to users and network members. Ideally, these lists should not be limited to titles only but should contain complete bibliographical descriptions, catalogue or call numbers and descriptors for ready use in producing a union catalogue.

3) Bibliography development

Another aspect of the publication programme of a network is the development of subject bibliographies, such as a bibliography of population education training materials, of curriculum materials,

or of research and evaluation studies. If feasible, every network member will be assigned a subject field in population education for which it will develop a bibliography. For instance, the Population Education Cell in a state in India or a regional centre in the Philippines can develop a national bibliography of all existing population education audio-visual aids, while another state/regional branch office can concentrate on materials integrating population education into selected subject disciplines.

The assignment of subject fields can also be based on geographical considerations. State/regional/district libraries can develop regional bibliographies and these can be compiled by the clearing house into a national bibliography.

The Population Education Clearing House at UNESCO is conducting such an activity on a periodic basis. Once every two years, funding support is given to national programmes to produce national bibliographies of population education materials. These are compiled in the Clearing House. This activity provides the Clearing House with up-to-date information on what materials are available, from whom and where. Such information is also useful when referring requests from users to specific countries.

4) Newsletters

Newsletters represent a well-received type of network publication because of their interesting format and topical news content. On-going/planned network activities and recent network publications are some typical news items.

Newsletters are prepared in the national focal point or clearing house, based on regular contributions submitted by network members who report on networking and information activities – regionally and inter-regionally – and on central activities, such as workshops, announcements of publications, extracts of important articles, training and user education programmes, and other topics.

5) Joint directories

Directories are very important in networking. Directories maybe subject-specific, focusing on projects, personnel or staff, addresses, consultants and experts, donor agencies, training programmes, research activities, educational institutions and other organizations engaged in population-related activities.

Directories can be prepared initially at a state/regional/district level. Later they can be compiled at a national level by the clearing house.

Directories are very useful tools in reference/referral service, in answering basic questions from users, in tackling in-house questions, such as: What facilities exist in other regions in the way of audio-visual equipment? What training sites are available? Which organizations can be tapped for funding needs? Who can be requested to serve as resource persons for training?

A joint directory of research studies reduces the possibility of duplicating research activities. This type of directory is urgently needed in the area of population education. A directory of research studies is an especially easy directory for librarians to compile because of their location in and affiliation with the academic environment, where both students and teachers undertake research studies or write theses and dissertations.

To achieve uniformity, there should be a standard format in describing research and evaluative studies. Directories should be updated to ensure their usefulness over the long term.

6) Manuals

Networks can also produce manuals aimed at improving the efficiency and effectiveness of network activities. Such a manual may cover the organisation of a network, the mechanism for establishing library collections, the classification and cataloguing of books, magazines, ephemera and audio-visual materials, the mechanism for retrieving and circulating holdings, the consolidation and repackaging of information, the development of a mailing list and formulation of dissemination strategies and other activities.

These manuals are of a practical and instructive nature. They are also basic and sufficiently flexible such that they retain their relevance to networking and the members development in years to come. At all times, the emphasis of such network manuals should be the need for systematic exchange of population education information.

7) Translation

Networks can assist in the translation information/documents into selected languages. Assistance can extend to the actual publication of certain translations and their eventual distribution/circulation to other network members and to users.

CO-ORDINATION SERVICES

Activities falling under this category are the responsibility of the national focal point or co-ordinating unit, such as the Population Education Clearing House of UNESCO.

1) Clearing House function

This requires a central library to acquire materials from various sources and in multiple copies for redistribution to network members. It may process and repackage information into forms which can be easily used and understood by users. It is expected to have an exhaustive knowledge of its network members, their holdings, facilities, location and other information.

2) Retrieval and storage function

A retrieval operation is set in motion by a query or request for a specific document, a selected set of documents, an exhaustive set of documents, or specific information or discrete data items.

Co-operative storage provides a means by which libraries may, with minimal expenditures, retain and even acquire infrequently used but potentially valuable research materials.

As a central storage, a clearing house should have a comprehensive collection of all publications developed in the regions that it covers. It is the responsibility of network members to supply the clearing house with such materials.

3) Referral centre

This is an activity closely related to the clearing house function whereby the staff can refer users to any network members which is best placed to meet their needs.

DELIVERY/MAILING SERVICE

A networking activity that is sufficiently easy to execute, delivery mailing service can be a two-way process depending on the agreement reached by network members and the availability of funding support. For instance, publications produced in the central office can be distributed to state/regional/district users through the mailing lists of the state/regional/district library. The central unit would have to determine the number of addresses on the mailing lists of the libraries of network members and the number of available publications that can be sent to them for redistribution. In this sense, network members serve as channels for redistribution.

On the other hand, publications developed in the states/regions/districts can be disseminated either directly to the other regions or indirectly through the central unit or clearing house which will, in turn, disseminate them to the various regional offices. An initial need is to study various delivery schemes and single out those which are efficient and cost effective.

RESEARCH, TRAINING AND OTHER SPECIAL SERVICES

1) User interest surveys

Before embarking on any networking activity, member libraries are advised to conduct individual user interest surveys to identify their users, their profiles, and their information needs. In addition to using the survey findings for their own purposes, the

member libraries also use these findings as bases for a broad overview of their users' profiles and information requirements, for transmission to the national focal point. Survey results are not only useful in determining the content of a library collection or in drawing up a mailing list of users; moreover, they help curriculum developers determine the kind of information to develop and the forms under which they should be processed and repackaged.

2) Joint research projects

To enable the national focal point or clearing house or any network member to determine the effectiveness of the publications which they are producing and/or disseminating, network members are requested to co-operate in data gathering through the use of questionnaires. In like manner, if a state/region/district needs data from other states/regions/districts for its research, the national focal point is expected to solicit the co-operation of other network members to give technical advice on how to proceed with the research or evaluation study.

3) In-service personnel training

Training in skills development, with particular focus on network operations, should be offered periodically. The need for training arises due to periodic increases in network membership, personnel turnover, the emergence of new trends and practices in library and network operations, the introduction of new projects requiring new inputs from personnel, and other related developments.

An intensive programme of training may incorporate basic network procedures and teach such matters as the following: What does a network do? How are the files structured? What are the possibilities for maximum use of the network?

Training may also cover techniques for the development and use of thesaurus retrieval systems, abstracting and indexing, fundamentals of bibliographies, techniques of information dissemination and writing/editing for specific audiences, the monitoring and evaluation of document utilisation, and the management of networks. Training can be offered on a periodic basis, with introductory programmes designed for new network members and refresher courses for all other members.

4) Workshops and meetings

These activities are undertaken periodically — say once every two months — to serve as a means of informing network members of projects which may need their mutual assistance and collaboration, of problems requiring their inputs, of guidelines for the standardisation of procedures/operations, of policy revisions/reviews, of the network's progress and the problems that have yet to be threshed out.

MARKETING OF NETWORK SERVICES

With the support of network members, a network can undertake aggressive marketing strategies to offer its services to both individual/corporate clients.

PROVISION OF FEEDBACK BETWEEN THE PRODUCERS AND USERS OF INFORMATION

Networks can provide the missing link between information producers and programme implementers by providing the former with feedback on the activities of the latter, and vice-versa.

Networks also perform the important task of feeding research findings to training institutions so that such findings can be incorporated in their training programmes.

PUBLICATION PROGRAMME

1) Photocopying service

As a network activity, this requires that network members be accessible to one another. In the case of sub-networks within state/regional/district offices, photocopying service can be assigned to one network member and rendered as a free service to all network members. Provision should be made for users of primary documents identified by users or by information officers.

The theoretical and practical aspects of duplicating processes are dealt with in a new technical discipline called reprography. Knowledge of the essentials of reprography is important for both information officers and subject specialists engaged in different areas of research and practical work. Clearly, a librarian who possesses a thorough knowledge of photocopying equipment is an asset to a network.

Comparison of Functions, Products, and Service Operations Among Types of Information Service Organizations (M = major activity, m = minor activity, r = rare activity, O = no activity):³³

		Special library	Documentation centre	Referral centre	Clearing-house	Information services centre	Information analysis centre
FUNCTIONS	Collection						
	Document	M	M	O	M	M	m
	Data/information	O	O	O	r	M	M
Processing							
	Document	M	M	O	M	M	m
	Data/information	r	O	O	r	M	M
Storage							
	Document	M	M	O	M	M	m
	Data/information	O	O	O	r	M	M
Retrieval							
	Document	M	M	O	M	M	m
	Data/information	O	O	O	r	M	M
Dissemination							
	Document	M	M	O	M	M	O
	Data/information	O	O	O	O	M	M
Publication or Reproduction							
	Document	O	M	O	M	M	M
	Data/information	O	O	O	O	M	M
Information Generation							
	Document	O	O	O	O	m	M
	Data/information	O	O	O	O	m	M
	Archives	M	m	O	O	r	C
SERVICES	Consultation and advice	r	O	r	r	m	M
	Replies to inquiries	m	r	r	r	M	M
	Referral	r	r	M	M	m	r
	Retrospective search	M	M	O	M	M	r
	SDI	m	m	O	m	m	r
	Serves visitors	M	O	O	r	m	r
	Conducts seminars and conferences	O	O	O	O	m	r
	Conducts research	O	O	O	O	m	r
	Translation services	m	O	O	r	m	r
	State of art reports	O	O	O	O	m	M
	Critical reviews	O	O	O	O	O	M
	Critical compilations	O	O	O	O	O	M
PRODUCTS	Handbooks	O	O	O	O	m	M
	Bibliographies	M	M	r	M	M	m
	Data sheets	O	O	O	O	m	M
	Current awareness bulletins	M	r	O	M	M	m
	Periodicals	m	O	O	O	m	r
	Abstracts	r	r	O	r	m	m
	Indexes	m	r	O	r	m	r
	Newletters	m	m	m	m	m	r
	Film	O	m	O	m	m	m
	Directories	m	O	M	m	m	r
	Translations	r	O	O	r	m	r
	Thesauri	m	r	O	m	m	r
	Recommendations	O	O	O	O	m	m
	Correlations	O	O	O	O	m	M
	Accession lists	M	M	O	m	m	r
	Conference proceedings	O	O	O	O	m	r

The Flow of Operations in a National Information System and the Institutions Responsible for Specific Activities are Shown Below³⁴

Operations in Chronological Order

1. Determining the needs of the users
2. Searching for all existing information
3. Acquiring missing information (mainly primary information in this case) (d)
4. Storing missing information (e)
5. Consolidating all information available
6. Storing consolidated information
7. Reproducing consolidated information
8. Distributing consolidated information to extension service (c)
9. Translating consolidated information
10. Storing translation
11. Repackaging translation
12. Reproducing repackaged information
13. Storing repackaged information
14. Promoting repackaged information to the users
15. Distributing repackaged information to the users

Responsible Institutions (b)

Extension service (a), SDI service

Referral centre, library, documentation centre

Library, documentation centre

Library, documentation centre

Information analysis centre

Library, documentation centre

Data dissemination centre, SDI service

Data dissemination centre, SDI service

Translating centre

Library, documentation centre

Extension service (c), SDI service

Extension service, data dissemination centre

Library, documentation centre

Extension service (c), SDI service

Extension service (c), SDI service

(a) Case where the information product to be developed will probably cover the needs of a large range of users.

(b) Only the main representatives are cited here.

(c) Including consulting firm, professional association, education programmes, etc.

(d) In other words: 1) existing consolidated information was not sufficient in the example considered here; 2) research results in their raw form (that is, primary information) were available.

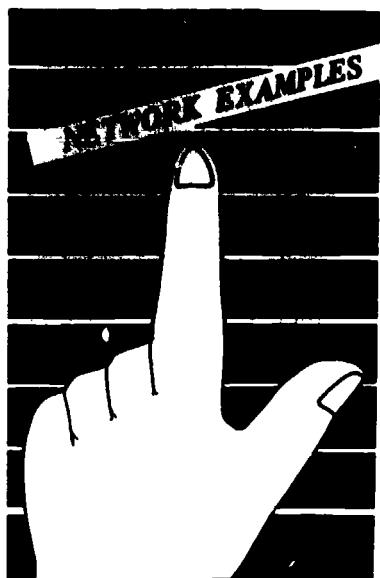
(e) Including preparatory operations for retrieval (indexing, cataloguing, abstracting).

Chapter Seven

NETWORK EXAMPLES

79

CHAPTER SEVEN



ASTINFO

Regional Network for the Exchange of Information and Experience in Science and Technology in Asia and the Pacific.

(one of the latest networks to be organized under UNESCO auspices).³⁵

Objectives

1. To stimulate and promote the creation of non-bibliographic databases in science, technology and socio-economic fields of importance to development in the region;
2. To strengthen bibliographic control of the countries' own scientific and technological output and establish bibliographic databases in subject areas of interest to the region, supported by document clearing houses;
3. To develop the technical and organisational basis for cross-border exchange of data and for the sharing of information processing facilities;
4. To develop specialised information networks in high priority subject areas and strengthen the information base of existing networks in science and technology;
5. To improve the national information infrastructure so as to ensure that all those countries which so wish can benefit from the regional network;
6. To strengthen one selected institution in each participating country to become a national node for the network, as well as national and regional institutions designated to become centres for network activities and services;
7. To introduce new and innovative information services, which can disseminate information from databases available in the region, provide access to databases outside the region and improve information support for development through appropriately consolidated and repackaged information;
8. To train information specialists;
9. To increase awareness among potential users of information by promoting existing systems and services and providing training in their use.

Structure

Each country has been invited by UNESCO to designate a national ASTINFO co-ordinating unit, a liaison officer and a national advisory group. The co-ordinating unit elaborates on

ASTINFO's policy and promotes/monitors the network's development in the country and the region.

The liaison officer participates in the annual consultative meeting to review the network's implementation and its problems and to propose projects and programme activities based on common needs and interests.

The national advisory group provides advisory service and assists the unit in the discharge of its duties.

Six associated centres are nominated for each country by the national co-ordinating unit. These are specialised centres with expertise and facilities for national or regional scale service.

Associated networks of ASTINFO comprise networks of institutions and experts in specialized subject fields in the region.

Activities

Project and programme activities are drawn-up and periodically revised by the participating countries themselves, based on their felt priorities. These activities include seminars, workshops and demonstrations of information handling techniques; the preparation of information tools and products; and referral service.

APEID

Asia and the Pacific Programme of Educational Innovation for Development.

(a co-operative endeavour of the UNESCO Member States, with primary focus on educational innovation for social and economic development).³⁶

Objectives

To stimulate and encourage educational innovation through a network of national institutions which share experiences and resources.

Structure

Member States jointly design, execute, supervise and evaluate APEID through national centres associated with the programme. As of October 1986, there were 168 associated centres from 25 Member States which contribute and benefit from the exchange of insights, skills and expertise promoted under APEID.

Activities

APEID undertakes the exchange and dissemination of information and materials and has an active publication programme, publishing a newsletter, directories, inventories and studies.

POPIN INTERNATIONAL

A Global Network that is utilized by population information users in both developed and developing countries.

(under the Population Division of the Department of International Economic and Social Affairs, UN Secretariat).³⁷

Objectives

To identify and establish better ways of improving the flow of population information among member institutions, through the development of common goals, the sharing of knowledge of the activities of network members, ensuring the compatibility of their systems and services, formulating working arrangements to develop and strengthen the information flow, and by soliciting the support of governments.

Structure

POPIN International is a decentralised network consisting of three parts: the network scheme, with co-operating institutions participating as members; the advisory committee; and the co-ordinating unit, serving as the secretariat of the network and the advisory committee.

Membership is open to population libraries, clearing houses, information systems, documentation/reference centres, and institutions that promote activities in the population information field, particularly in the developing world. Members may be governmental, intergovernmental or non-governmental, at the national, sub-regional, regional or international level.

The advisory committee is composed of 14 representatives from member institutions of the network, from both developed and developing countries, acting in their individual capacity.

The co-ordinating unit guides, stimulates and co-ordinates the development of the network in the context of national, regional and international co-operation.

Activities

Among the immediate activities of the co-ordinating unit are the organisation of working groups, comprising members of co-operating institutions, to deal with the development of guidelines for the establishment and strengthening of population information services, the preparation of an inventory and an evaluation of training materials and the methodologies for population information activities, and the management of the population Multilingual Thesaurus.

ASIA-PACIFIC POPIN

13 National Population Information Centres set up during the past decade or so, mainly with UNFPA and ESCAP assistance form the core of Asia-Pacific POPIN, a Regional Network implemented within the framework of Global POPIN.³⁸

Objectives

To increase information exchange among countries and improve technical information systems management through the sharing of experiences and technical know-how. Moreover, technical co-operation among developing countries (TCDC) can be promoted through activities organised within the Asia-Pacific POPIN network framework. Priority is given to strengthening or establishing national centres and networks and facilitating the exchange of information, knowledge, experience and technical know-how among them through training, technical assistance, advisory services, meetings and publications.

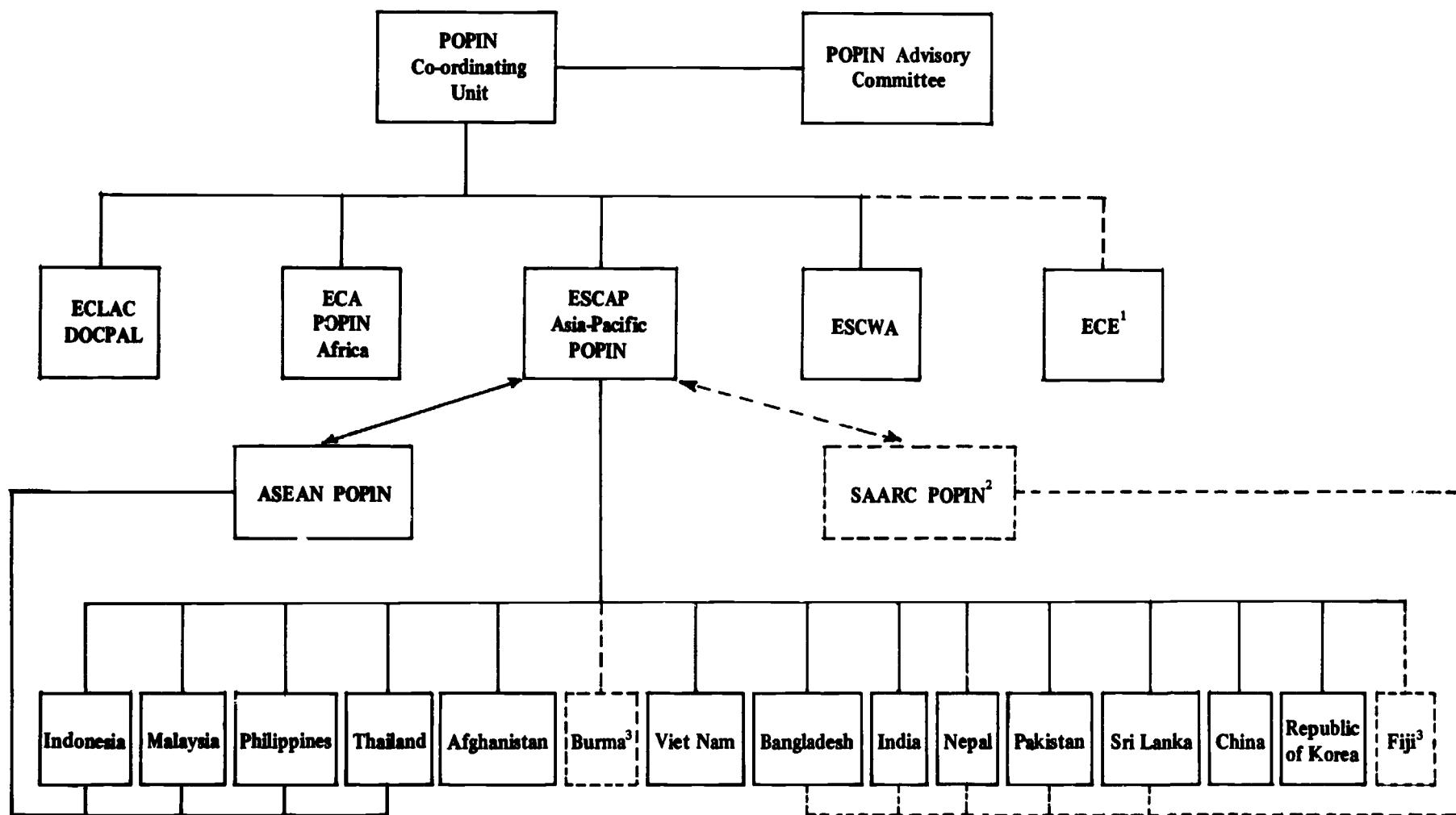
Structure

Asia-Pacific POPIN is a decentralised network of 13 national population information centres with ESCAP Population Information Centre as the regional focal point.

Activities

1. Publication of the following: the quarterly Asia-Pacific POPIN Newsletter, with inputs from national population information centres; quarterly issues of "Recommended List of Titles in Population," for distribution to national population information centres and population libraries in the region; monthly issues of ADOPT; and a directory of current research in the Asia-Pacific region.

ASIA-PACIFIC POPIN : A DECENTRALIZED NETWORK RESPONDING TO REGIONAL AND NATIONAL NEEDS



¹ Not organized as a 'POPIN Network'. Has its own developed linkages; supports global POPIN.

² Potential subregional grouping.

³ Proposed national centres.

↔ Consultative linkages.

2. Two Asia-Pacific POPIN Expert Working Group Meetings (1988, 1990); training workshops (1987, 1990) to be organized on a TCDC base in East Asia and South Asia, respectively; and a sub-regional workshop (1987) on population data and information needs and resources for the Pacific island countries.

3. Organized POPIN Expert Working Group Meetings in Beijing in 1984 and will organize the same meeting every two years in co-operation of the global POPIN Co-ordinating Unit and national population centre in order to extend the benefits of exchange of experience and knowledge among national centres.

4. Provides technical assistance to countries in terms of placing orders for books, periodicals for several national population information centres and developing lists of books, periodicals required to supplement and strengthen the centres' resource bases.

ASEAN POPIN

Part of the International Population Network (POPIN), launched in 1980.³⁹

Objectives

To contribute to more effective implementation of national family planning and population policies and programmes in the countries of ASEAN through improved flow and use of population information by intended user groups, such as population policy makers and planners, programme implementors, researchers and academicians, general educations, as well as population agencies – public or private, voluntary, funding or implementing – and operating at the national and international levels.

Specifically, the ASEAN POPIN seeks the following objectives:

1. To further develop and/or strengthen the national (main core) population information centre, as well as each of the other existing units (information centre, library, clearing house, etc.) within the larger population information system/network in their various functions: collection, processing, storage, retrieval, dissemination and evaluation;

2. To further develop and/or strengthen the national population information system through networking or linkage of the activities of the various networks of information producers and users and the network of professional associations which make up the system.

Structure

Implementing agencies are designated as follows: Indonesia (the National Family Planning Co-ordination Board through the

Bureau of Population Data); Malaysia (the National Family Planning Board through its IEC Division); the Philippines (the Commission on Population through the Institute of Mass Communication, University of the Philippines); and Thailand (the National Family Planning Programme of the Ministry of Public Health). A country director oversees the activities carried out to meet the objectives of the project.

Activities

1. Regular and sustained exchange of publications between and among participants of ASEAN population programmes;
2. Inter-agency/unit/library/documentation centre lending and exchange arrangements;
3. Co-operative publications (e.g. bibliographies, research digests, union lists/catalogues);
4. Collaborative research, development of materials and training activities;
5. Publication of ASEAN and/or Asian Newsletter or Research Bulletin, pamphlets, digests;
6. Referrals, selective dissemination of information, provision of duplicate copies, co-operative acquisition and information storage programmes, sharing of resources/facilities;
7. Holding of ASEAN meetings for sustained dialogues;
8. Preparation of information packages for special population projects/programmes;
9. Formation of small groups (e.g. association of project directors, librarians); and
10. Assistance in identifying actual and potential user groups for the dissemination of research project outputs, and holding periodic consultative meetings with policy or decision makers, population and development managers, government officials and administrators.

PHILIPPINE POPIN

The Philippine POPIN Project is a nationwide network of 12 Population Information Centres — one national and 11 regional centres.⁴⁰

Objectives

1. To meet the research and information needs of population information sources and users (government commissions, ministries, bureaus, research and government institutions, population scholars and professionals);

2. To co-ordinate, strengthen, improve and monitor/evaluate the population information services of population information channels (e.g. libraries, documentation centres, clearing houses, data analysis centres).

Structure

Formerly under the administration of the Institute of Mass Communication at the University of the Philippines, the project is now being managed by the International Social Research and Development Foundation, Inc.

The Philippine POPIN is part of the ASEAN POPIN. Except for the national centre (focal point which is at the population Centre Foundation) all the 11 regional centres are school based.

The national population information centre functions as the national referral centre, national depository centre, national distribution centre, national population information dissemination centre and as compiler of the national union catalogue of population documents.

Activities

Research, training, network management and population information dissemination through the publication of the following materials: guides to the literature of population and demography; directories of population agencies; case studies and state-of-the-art papers; and papers and proceedings of conferences and training programmes. Examples of these are:

- a) the national survey of POPIN users, channels and producers; and
- b) training programmes on basic and advanced documentation and information networking and technical writing and repackaging.

The 12 information centres form a network because they have common features, including:

1. resource sharing;
2. annual planning meetings;
3. a common training programme for all staff involved in the network; and
4. an organization structure that provides for fiscal and legal responsibility, planning and policy formulation.

Structure of a pilot Philippine Population Information Network*

The operational structure of the Philippine Population Information Network is schematically presented below. It consists of a national node and eleven (11) regional nodes.

The Population Library of POPCOM and PCF serves as the national mode while the AUF (Region III), BU (Region V), (Region VIII), USC (Region VII), Xavier U (Region X), UNP (Region IX) serve as the regional nodes.

Scheme of the Philippine Population Information Network Structure

The Population Library (POPCOM & PCF) in Collaboration with the Information Units of NEDA, UPPI, MEC/PEP, UP-IMC, PGH, etc.

University of Northern Philippines, Vigan, Ilocos Sur

Isabela State College, Iligan Isabela

Bicol University Legaspi, Albay

University of San Carlos, Cebu City, Cebu

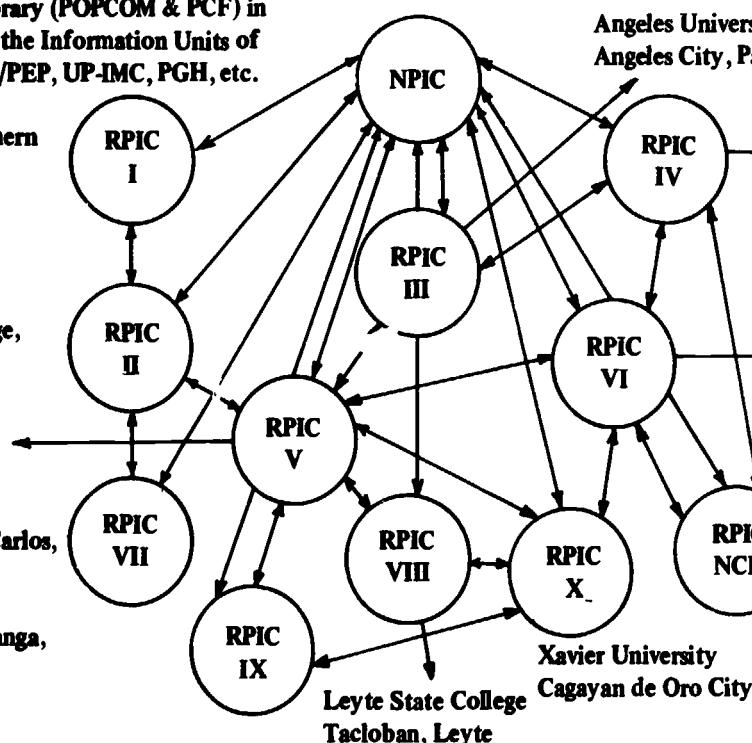
Ateneo de Zamboanga, Zamboanga City

**Angeles University Foundation
Angeles City, Pampanga**

Palawan State College, Puerto Princesa, Palawan

University of the Philippines in the Visayas, Iloilo City, Iloilo

PGH Family Planning Center, UP in Manila, Manila



* ESCAP, "Report of the Expert Working Group on Development of Population Information Centres and Networks, 20-23 June 1984, Bangkok, Thailand." Asian Population Study Series No. 60. Bangkok, ESCAP, 1984.

CENTER FOR INFORMATION AND DOCUMENTATION NETWORK FOR THE NATIONAL FAMILY PLANNING PROGRAMME

Set up by Indonesia's National Family Planning Co-ordinating Board, in co-operation with the family planning programme's implementing units and other government and non-government information/documentation centres.⁴¹

Objectives

1. To strengthen the functions of the network in the NFPCB organizational structure, to enable the NFPCB, centrally and regionally, to become the centre for the collection, processing, analysis and dissemination of family planning information and related materials.
2. To provide information back up to various components of the family planning programme, especially those that conduct education and training, information and motivation-oriented activities.
3. To maintain and extend information and documentation network co-operation in and out of the country.

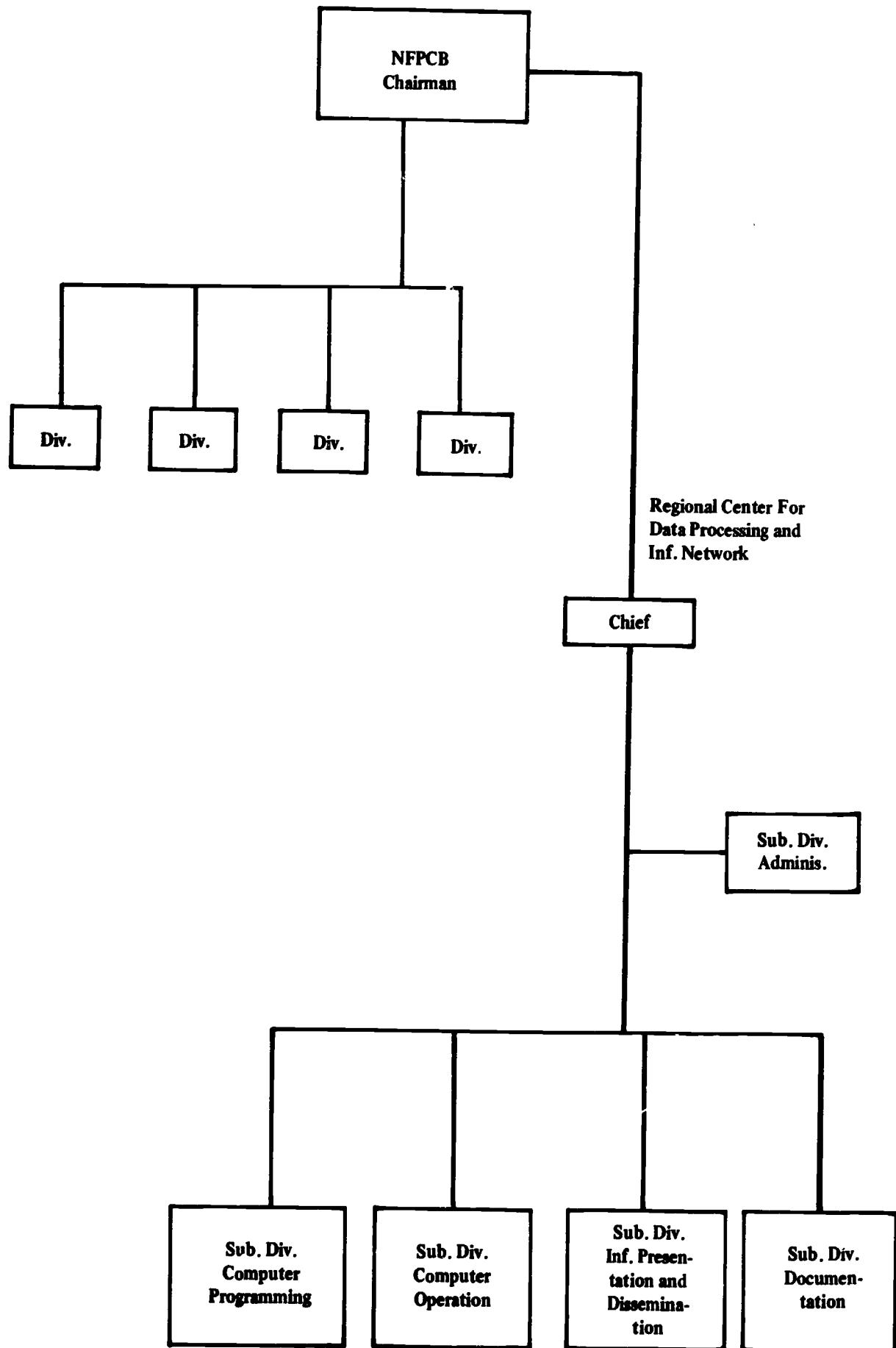
Structure

The status of the centre is that of a technical implementing unit directly under the chairman of NFPCB. It exercises its functions through five divisions, as follows: the Divisions of Data Collection and Processing, Information Presentation and Dissemination, Documentation, Programme Development and Administration.

Activities

At the national and regional level, there are four main programme activities. These are the following:

1. Data bank and documentation/clearing house activities;
2. Data and information presentation;
3. Programme development, and
4. Administration and programme planning.



CHINA POPIN

Set up in September 1986 in Beijing

Objectives

The China POPIN has been set up to improve co-operation among family planning departments and affiliated organizations.

Structure

The network is composed of the China Population Information Centre (CPIC), population information organizations in different provinces, autonomous regions, municipalities, and information departments of universities and institutes.

A co-ordinating group takes responsibility for the co-ordination and guidance of network activities. Group members are elected and a chairman is installed. Co-ordinating meetings are to be held annually or semi-annually to plan new activities and review previous work.

Activities

1. To collect population education information within the country and from abroad.

2. To maximise use of members' holdings.

3. To share information resources and materials

4. Members will provide one another with their respective publications.

5. A classification scheme, thesaurus and worksheet for computer storage will be unified within the network for future on-line retrieval of domestic and foreign literature and other materials.

REFERENCES

- 1 Atherton, Pauline. *Handbook for Information Systems and Services*. (Paris, Unesco, 1977) p. 100.
- 2 Valls, Jacques. *Sharing of Information Resources*. (Lecture given at Mahidol University, Siriraj Medical School, Bangkok, Dec. 2, 1980) p. 4
- 3 United Nations Asian and Pacific Development Institute. *Information for Development Planning: Report of the Seminar on Information for Development Planning, Pattaya, Thailand, 23-29 January 1979* (Bangkok, UNAPDI, 1979) p. 246
- 4 Ibid.
- 5 Mercado, Cesar. *Information Networking Concepts and Models*. (Quezon City, Institute of Mass Communication, University of the Philippines, 1982) p. 12.
- 6 Martin, Susan. *Library Networks 1978-1979*. (New York, Knowledge Industry Publications, Inc., 1978) p. 9.
- 7 Atherton, Pauline. *Handbook for Information Systems and Services*. (Paris, Unesco, 1977) p. 110
- 8 Ibid.
Also from Martin, Susan. *Library Networks 1978-1979*. (New York, Knowledge Industry Publications, Inc., 1978) p. 6.
- 9 Unesco Population Education Clearing House. "Networking for Population Education" In *Meeting Information Needs for Population Education (Booklet 2)* (Bangkok, Unesco ROEAP, 1980) p. 77.
- 10 Ibid., p. 78.
- 11 Wellington, Clint. *AECT and Networking: A Status Report for 1976* (Based from the article, Information Network in Biomedicine by William Millard, Journal of Biocommunications, Vol. 11, No. 3, Nov. 1975) pp. 7-14.
- 12 Ibid.
- 13 Atherton, Pauline. *Handbook for Information Systems and Services*. (Paris, Unesco, 1977) pp. 110-112.
- 14 Valls, Jacques. *Sharing of Information Resources*. (lecture given at Mahidol University, Siriraj Medical School, Bangkok 2 December 1982) p. 2.
- 15 Ibid., p. 1
- 16 Unesco Regional Office for Education in Asia and the Pacific. Programme of Action to Enhance the Effectiveness of Population Education. Draft Report of a Regional Consultative Seminar on Population Education, ROEAP Bangkok, 16 to 22 Sept. 1986. (Bangkok, Unesco ROEAP, 1986) p. 126.
- 17 UNAPDI. *Information for Development Planning: Report of the Seminar on Information for Development Planning, Pattaya, Thailand, 23-29 January 1979*. (Bangkok, UNAPDI, 1979) p. 27.
- 18 Martin, Susan. *Library Networks 1978-1979*. (New York, Knowledge Industry Publications, Inc., 1978) p. 9.
- 19 Radel, David. *Information Sharing: Issues and Problems: Paper Presented at the TRIAD Planning Workshop, 9-20 June 1975, Honolulu, Hawaii*. (Honolulu, East-West Centre, 1975) p. 3.
- 20 UNAPDI. *Information for Development Planning: Report of the Seminar on Information for Development Planning, Pattaya, Thailand, 23-29 January 1979*. (Bangkok, UNAPDI, 1979) p. 27-28
- 21 Kolbe, Helen. "A Worldwide Population Information Network: Status and Goals" *Special Libraries*, July 1978, Vol. 69 No. 7.
- 22 Martin, Susan. *Library Networks 1978-1979*. (New York, Knowledge Industry Publications, Inc., 1978) p. 9.
- 23 Atherton, Pauline. *Handbook for Information Systems and Services* (Paris, Unesco, 1977) p. 98-103
- 24 Martin, Susan. *Library Networks 1978-1979*. (New York, Knowledge Industry Publications, Inc., 1978) p. 9.

25 Adapted from: *Getting Into Networking: Guidelines for Special Libraries* which is based on *Special Libraries Association (SLA) State-of-the-art Review*, No. 5 1977.

26 ESCAP. *Overview of Worldwide Population Information Networking and Future Strategies for Population Information Networking in the Asia-Pacific Region*. Presented during the Asia-Pacific POPIN Expert Working Group on Population Information Networking, 16-20 Oct. 1986, Beijing. (Bangkok, ESCAP, 1986) p. 2.

27 ESCAP. *Overview of the Development of National Population Information Centres and Networks in Countries of the Asian and the Pacific Region*. (Bangkok, ESCAP, 1984) p. 29.

28 Conferido, Reydeluz. "The ASEAN Labour Information Network (ALINE) Concept and Implications", *National Consultative Workshop on the ASEAN Labour Information Network* (Manila, Institute of Labour and Manpower Studies, 1986).

29 Unesco. *National ASTINFO Co-ordinating Unit. Regional Network for the Exchange of Information and Experience in Science and Technology in Asia and the Pacific (ASTINFO)*. (Paris, Unesco, 1984) p. 2.

30 Adapted from:

- Atherton, Pauline. *Handbook for Information Systems and Services*. Paris, Unesco, 1977)
- Martin, Susan. *Library Networks 1978-1979*. (New York, Knowledge Industry Publications, Inc., 1978)
- Radel, David. Information Sharing: Issues and Problems Paper Presented at the TRIAD Planning Working, 9-20 June 1975, Honolulu, Hawaii. (Honolulu, East-West Centre, 1975)
- UNAPDI. *Information for Development Planning: Report of the Seminar on Information for Development Planning, Pattaya, Thailand, 23-29 January 1979*. (Bangkok, UNAPDI, 1979) p. 27-28.
- Villanueva, Carmelita. *Establishing a Network of Population Education and Population-Related Information Services in the Socialist Republic of Viet Nam*. (Bangkok, Unesco, 1983).

31 Atherton, Pauline. *Handbook for Information Systems and Services* (Paris, Unesco, 1977) p. 112.

32 UNAPDI. *Information for Development Planning: Report of the Seminar on Information for Development Planning, Pattaya, Thailand, 23-29 January 1979*. (Bangkok, UNAPDI, 1979) p. 226.

33 Atherton, Pauline. *Handbook for Information Systems and Services* (Paris, Unesco, 1977) p. 87.

34 Ibid., p. 89.

35 Unesco. *National ASTINFO Co-ordinating Unit. Regional Network for the Exchange of Information and Experience in Science and Technology in Asia and the Pacific (ASTINFO)*. (Paris, Unesco, 1984).

36 Unesco ROEAP. *APEID in Brief*. (Bangkok, Unesco ROEAP, 1984)

37 United Nations. "International Population Information Network" *POP'N Bulletin*, No. 2 April 1982 (New York, United Nations, 1982)

38 ESCAP. *Overview of Worldwide Population Information Networking and Future Strategies for Population Information Networking in the Asia-Pacific Region. Paper Presented to the Asia-Pacific POPIN Expert Working Group on Population Information Networking*, 16-20 Oct. 1986, Beijing. (Bangkok, ESCAP, 1986).

39 Ibid.

40 ESCAP. *The Philippine Population Information Network: Developments Since 1984. Paper Presented During the Asia-Pacific POPIN Expert Working Group on Population Information Networking*, 16-20 Oct., 1986, Beijing. (Bangkok, ESCAP, 1986)

41 ESCAP. *The National Centre for Information and Documentation Network for the National Family Planning Programme, Paper Presented During the Asia-Pacific POPIN Expert Working Group on Population Information Networking*, 16-20 Oct. 1986. Beijing. (Bangkok, ESCAP, 1986)